Access DB# 147034

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jeffrey E. Russel Examiner #: 62785 Date: 3-7-2005
Art Unit: 1654 Phone Number 571-272-0969 Serial Number: 10/683,549
Mail Box and Bldg/Room Location: REN 3C18(mailbox), 3D19(office) Results Format Preferred (circle): PAPER DISK E-MAIL
If more than one search is submitted, please prioritize searches in order of need.

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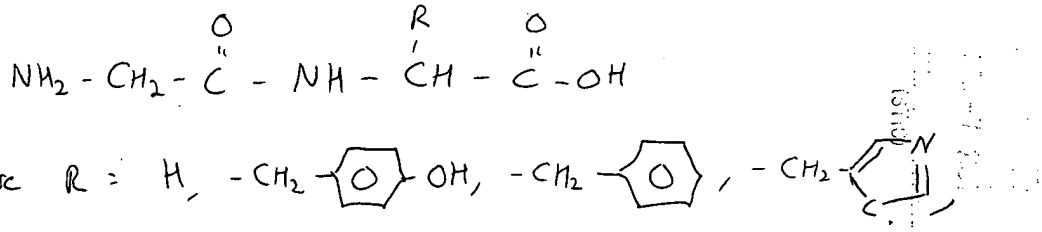
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of invention: Stabilization of Pharmaceutical Protein Formulations With Small Peptides
Inventors (please provide full names): F. Somers, D. Faict

Earliest Priority Filing Date: 10-10-2003

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search the following structure



where R = H, ,

$-CH_2-COOH$, or $-CH_3$.

Please make sure the NH_2 and COOH termini are specified so that the hits are dipeptides.

I'm most interested in the Gly-His dipeptide, or in any of the peptides combined with a pharmaceutical protein such as erythropoietin, G-CSF, GM-CSF, interferon, interleukin, IGF, NGF, BMP, or TNF.

Thank you. JER

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STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher:	NA Sequence (#)	STN
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic	Dr.Link
Date Completed:	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time:	Other	Other (specify)

PTO-1590 (8-01)

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L40                 STR
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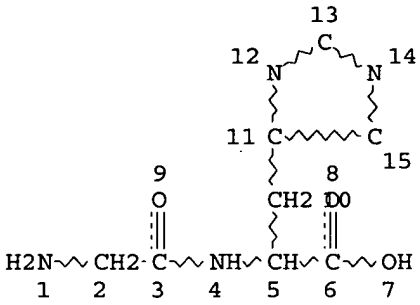


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CONNECT IS E2  RC AT  13
CONNECT IS E2  RC AT  14
CONNECT IS E2  RC AT  15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L42           12 SEA FILE=REGISTRY SSS FUL L40
L45            9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L42 NOT PT/ELS
L46          285 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45

=> d l46 ibib ab hitstr 275-285

L46  ANSWER 275 OF 285  HCAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         1962:49552  HCAPLUS
DOCUMENT NUMBER:          56:49552
ORIGINAL REFERENCE NO.:   56:9391a-b
TITLE:                    Standard ionophoretic mobilities of various
                          biochemicals, in amaranth units, at several pH values
                          from 3.3 to 9.3
AUTHOR(S):                Thornburg, W. W.; Werum, L. N.; Gordon, H. T.
CORPORATE SOURCE:         California Packing Corp., Emeryville
SOURCE:                   Journal of Chromatography (1961), 6, 131-41
                          CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE:            Journal
LANGUAGE:                 Unavailable
AB    cf. CA 54, 19089f.  The "Am value," defined as 0.01 of the distance
      between spots of the uncharged dye, Apolon, and the neg. charged dye,
      Amaranth, is tabulated for numerous known organic compds. (including N bases,
      amino acids, carbohydrates, organic acids, and phosphate esters) in 30%
      HCONH2 organic buffers at 8 pH values ranging from 3.3 to 9.3.  The pK and
      mol.-weight values calculable from ionophoretic data sometimes differ
      considerably from expected values owing to unusually strong mol.
      interactions with the buffers.  The mobility pH pattern nevertheless gives
      significant information about mol. structure of unknowns.
IT    2489-13-6, Histidine, N-glycyl-
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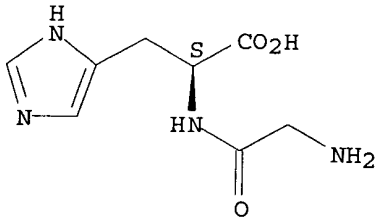
Glycine - His Search

← only sample of hits printed

(electrophoresis of)
RN 2489-13-6 HCAPLUS
CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L46 ANSWER 276 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1962:25291 HCAPLUS
DOCUMENT NUMBER: 56:25291
ORIGINAL REFERENCE NO.: 56:4854g-i,4855a-i,4856a-g
TITLE: The synthesis of histidine peptides
AUTHOR(S): Losse, Guenter; Mueller, Gerhard
CORPORATE SOURCE: Univ. Halle, Saale, Germany
SOURCE: Chemische Berichte (1961), 94, 2768-78
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 56:25291

AB The synthesis of a series of new di- and tripeptides with C- and N-terminal histidine by the carbodiimide and the chloride method, using the carbobenzyloxy, trityl, benzyl, and phthaloyl groups as protective groups, was described. Concentrated aqueous L-histidine-HCl (I.HCl) heated 3 hrs. in a sealed tube at 160-70° and diluted with 2 vols. EtOH gave 90-5% DL-I.HCl. I in liquid NH3 benzylated gave 60-70% N(im)-benzyl-L-histidine (II), m. 248-9° (70% EtOH and H2O) (all m.ps. are corrected), [α]20D 12.2° (c 2, H2O + 1 equivalent HCl). II treated with ClCO2CH2Ph, diluted with H2O, acidified with AcOH, and filtered yielded 70% Nα-carbobenzyloxy derivative (III) of II, needles, m. 213-16° (BuOH), [α]20D -17.0° (c 2, HCl). III (5.62 g.) and 1.55 g. H2NCH2CO2Et (IV) in 180 cc. C5H5N treated at -10° with 3.5 g. dicyclohexylcarbodiimide (V), stirred 3 hrs. at - 10°, kept at room temperature overnight, and evaporated in vacuo, and the residue evaporated with EtOAc, dissolved in EtOAc, treated with a few cc. AcOH, kept several hrs. at room temperature, filtered from the dicyclohexylurea, washed, dried, concentrated, and diluted with Et2O gave 5 g. Et ester (VI) of Nα-carbobenzyloxy-N(im)-benzyl-L-histidylglycine (VII), needles, m. 120-1° (EtOAc-Et2O). VI saponified with N NaOH-MeOH yielded 80% VII, m. 216-17° (decomposition) (PrOH-Et2O), [α]20D -5.5° (c 2, AcOH). VII in 80% AcOH hydrogenated at 50-60° over Pd-black yielded 65% L-histidylglycine-HCl-0.5H2O, m. 216-17° (decomposition). L-Leucine Me ester-HCl (VIII.HCl) (12 millimoles) treated with NH3-Et2O, and the free VII condensed in the usual manner with 10 millimoles III yielded 80% Me ester of Nα-carbobenzyloxy-N(im)-benzyl-L-histidyl-L-leucine (IX), needles, m. 124-6° (EtOAc-petr. ether), which saponified with N NaOH-MeOH gave 82% IX, needles, m. 190-2° (decomposition) (C5H5N-Et2O).

IX in AcOH hydrogenated 8 hrs. at 60° over Pd-C gave 60% L-histidyl-L-leucine, m. 217-20°, [α]20D -43.0° (c 1, 0.1N NaOH). PhCH2OCONHCH2CONHCH2CO2Et treated with HBr-AcOH, and the resulting 12 millimoles glycylglycine Et ester-HBr (91%) treated successively with NH3-CHCl3 and 10 millimoles III yielded about 60% oily Et ester of Nα-carbobenzyloxy-N(im)-benzyl-L-histi-dylglycylglycine (X), which saponified with NaOH-MeOH gave 71% X, needles, m. 93-6° (EtOAc-Et2O). L-Histidine Me ester (XI) in dry CHCl3 treated with Ph3CCl and Et3N, and the product saponified with 20% KOH in propylene glycol, dissolved in boiling EtOH, and cooled gave 70-80% ditrityl-L-histidine (XII), prisms, m. 189-90° (CH2Cl2-Et2O), [α]21D 5.5° (c 5, C5H5N), [α]21D 7.5° (c 1, CHCl3). XII (6.4 g.) and 11 millimoles appropriate amino acid ester in 50-60 cc. CH2Cl2 treated at -10° with 2.1 g. V, stirred 3 hrs. below 0° and overnight at room temperature, and worked up, the product in MeOH or Me2CO saponified with 12 cc. N NaOH, the solvent evaporated in vacuo, the residue diluted with 50 cc. H2O, acidified with cooling with AcOH, and extracted with CHCl3, the residue from the extract heated 0.5 hr. on the water bath with 30 cc. 50% AcOH or aqueous-alc. HCl, diluted with H2O, cooled, filtered from Ph3COH, and extracted with CHCl3, and the residue from the extract evaporated several times with H2O and finally with Et2O and repptd. from aqueous EtOH with Me2CO or Et2O gave the corresponding peptide acetate or HCl salt which could be converted to the free peptide with an anion exchange resin. IV and XII gave in this manner 91% Et ester of ditrityl-L-histidylglycine (XIII), which, saponified, gave 80% XIII, m. 155-60° and then 85% L-histidylglycine, m. 175-80° [α]20D 24.6° (c 1, H2O). VIII and XII yielded 91% Me ester of ditrityl-L-histidyl-L-leucine (XIV), colorless oil, which, saponified, gave 90% ditrityl-L-leucine; L-histidyl-L-leucine, 85%, m. 217-20° [α]20D -41.8° (c 1, 0.1N NaOH). XII and L-phenylalanine Et ester gave about 80% oily Et ester of ditrityl-L-histidyl-L-phenylalanine (XV), which, saponified with N NaOH-Me2CO and neutralized with HCl, yielded 85% XV, m. 150-4° (decomposition); L-histidyl-L-phenylalanine-HCl m. 214-15° (decomposition), 91%, which with an anion exchange resin gave the free peptide, m. 250-2° (decomposition), [α]20D 32.9° (c 2.5, N HCl). XII and L-serine Me ester yielded 85% Me ester of ditrityl-L-histidyl-L-serine (XVI), leaflets, m. 227-8° (EtOH-Et2O), which refluxed 10 min. with N NaOH-MeOH gave 82% ditrityl-L-histidyl-L-serine-HCl, m. 154-6° (decomposition) (CH2Cl2Et2O); L-histidyl-L-serine-AcOH (XVII.AcOH), prisms, m. 120-30° with slow softening, [α]20D -11.5° (c 1, 0.1N NaOH), 92%; XVII, m. 138-41°. XII and XI gave about 40% oily Me ester of ditrityl-L-histidyl-L-histidine (XVIII), which refluxed 5 min. with 20% KOH-MeOH, diluted with H2O, acidified with cooling with N HCl, and extracted with CHCl3 gave 65% XVIII.HCl.H2O. XIII and XI in tetrahydrofuran gave about 83% oily Me ester of ditrityl-L-histidylglycyl-L-histidine (XIX), which saponified with N NaOH in Me2CO, acidified with N HCl, concentrated, diluted with H2O, and extracted with CH2Cl2 yielded 87% XIX, m. 185-90° (CH2Cl2-Et2O), [α]20D -11.0° (c 2, CH2Cl2); L-histidylglycyl-L-histidine-2AcOH (XX.2AcOH) m. 145-60° with slow softening (MeOH-Et2O), [α]18D -5.3° (c 2, 0.1N HCl); XX decomposed 235-40°. The appropriate carbobenzyloxyamino acid or peptide and histidine Me ester in tetrahydrofuran coupled at about -5 to -10° with V, kept at room temperature overnight, and worked up in the usual manner, the resulting peptide ester saponified with N NaOH in MeOH, and the carbobenzyloxy group removed by catalytic hydrogenation over PtO2 or Pd-C in AcOH gave the corresponding peptide with C-terminal histidine.

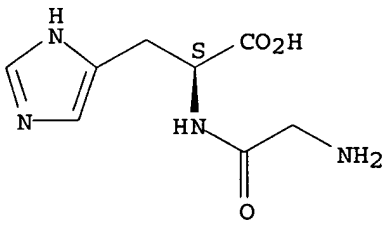
Carbobenzyloxy-DL-leucine and DL-XI [from DL-XI.2HCl, m. 150-2° (MeOH-Et2O)] gave 85-90% oily Me ester of carbobenzyloxy-DL-leucyl-DL-histidine (XXI); XXI.HCl, 86%, m. 126-8° (PrOH-iso-Pr2O); DL-leucyl-DL-histidine-AcOH, 92%. L-XI (from the di-HCl salt, m. 199-200°) and carbobenzyloxyglycylglycine in HCONMe2 yielded 86% Me ester of carbobenzyloxyglycylglycyl-L-histidine-0.5H2O (XXII.0.5H2O), m. 189-90° (PrOH-Et2O); XXII, 90%; glycylglycyl-L-histidine-AcOH, 91%, m. from 130° with slow softening (aqueous EtOH-Et2O), [α]18D 16.0° (c 2, H2O); glycylglycyl-L-histidine, decomposing above 210°. Carbobenzyloxy-DL-phenylalanine (XXIII) and DL-XI yielded 86% Me ester of carbobenzyloxy-DL-phenylalanyl-DL-histidine (XXlV), m. 84-6° (CH2Cl2-CCl4; XXIV, 92%, m. 183-5° (hot H2O); DL-phenylalanyl-DL-histidine-AcOH, 89%, m. from 130° with decomposition at 170-5°. L-XXIII and L-XI yielded 74% Me ester of carbobenzyloxy-L-phenylalanyl-L-histidine (XXV), m. 155-60° (CH2Cl2-petr. ether); XXV, 86%, m. 205-7° (EtOH-Et2O). The appropriate amino acid fused at 160-70° with phthalic anhydride (XXVI) or treated with N-carbethoxyphthalimide (XXVII) gave the corresponding phthaloylamino acid. XXVI (72.5 g.) in 250 cc. dry HCO-NMe2 and 70 cc. Et3N treated dropwise with cooling and stirring during 1 hr. with 50 cc. ClCO2Et, stirred 2 hrs. at room temperature, and poured into 1.5 l. H2O gave 88 g. XXVII, m. 89°. XXVI and glycine gave 92% phthaloylglycine (XXVIII), m. 191-2°. DL-Alanine and XXVI yielded 90% phthaloyl-DL-alanine (XXIX), m. 163°. β-Alanine and XXVI gave 93% phthaloyl-β-alanine (XXX), m. 152° L-Valine and XXVII yielded 85% phthaloyl-L-valine (XXXI), m. 115° (Et2O-petr. ether), [α]20D -67.1° (c 0.5, EtOH). XXVII (14.8 g.) and 13.2 g. glycylglycine fused at 160-70° refluxed 1 hr. with 25 cc. HCON-Me2, poured into 1 l. hot H2O, and cooled gave 24.4 g. phthaloylglycylglycine (XXXII), needles, m. 232-3°. DL-Valylglycine and XXVII fused 20-30 min. at 160-70° and poured into H2O yielded 85% phthaloyl-DL-valylglycine, needles, m. 230-1° (hot H2O). XXVIII with excess SOCl2 in C6H6 at 60° gave 93% acid chloride (XXXIII) of XXVIII, m. 85° (C6H6-Et2O). XXIX gave similarly 90% acid chloride (XXXIV), m. 73° (C6H6-Et2O). XXX gave 85% acid chloride (XXXV), m. 100-2°. XXXI stirred with excess SOCl2 and evaporated in vacuo, and the residue evaporated twice with CHCl3 gave 92% acid chloride, needles, m. 118-19° (Et2O-petr. ether). XXXII and excess SOCl2 stirred to solution at 50°, filtered, and evaporated in vacuo yielded nearly 100% oily-hygroscopic acid chloride (XXXVI). The appropriate phthaloylamino acid chloride (20-2 millimoles) in 25 cc. dioxane added dropwise with stirring at -10° slowly to 4.2 g. I.HCl in 25 cc. H2O and 5.8 cc. Et3N and worked up, and the product treated with N2H4.H2O gave the corresponding peptide. XXIII and I.HCl gave in this fashion 55% phthaloyl derivative of glycyl-L-histidine (XXXVII), m. 258-62° (decomposition) (aqueous PrOH); XXXVII, 60% m. 170-5°. XXXV and I.HCl yielded 69% phthaloyl derivative of β-alanyl-L-histidine (XXXIX), m. 221-4° (decomposition); XXXIX, needles, 85%, m. 260-2° (decomposition), [α]20D 21.9° (c 1, H2O). XXXIV and DL-I.HCl gave 35% phthaloyl derivative-H2O (XL), m. 229-31° (decomposition) (50% EtOH and sublimed in vacuo); XL.H2O 87%, m. 198-202° (decomposition) (EtOH-Et2O). XXXVI and I.HCl yielded 52% phthaloyl derivative of glycylglycyl-L-histidine (XLI), needles, m. 228-33° (decomposition) (PrOH-Et2O); XLI, 85%, m. 100° (unsharp) (PrOH-Et2O).

IT **2489-13-6**, Histidine, N-glycyl-, L-
(preparation of)

RN 2489-13-6 HCAPLUS

CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

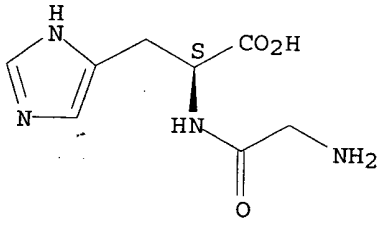


L46 ANSWER 277 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1962:4375 HCAPLUS
DOCUMENT NUMBER: 56:4375
ORIGINAL REFERENCE NO.: 56:838g-i,839a
TITLE: Amino acid and protein metabolism in Walker carcinoma 256 cell cultures
AUTHOR(S): Green, Morris; Miller, Leon L.
CORPORATE SOURCE: Univ. of Rochester, Rochester, NY
SOURCE: Cancer Research (1961), 21, 103441
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB In cell cultures of Walker rat carcinoma 256, DL-leucine-1-C14 was incorporated into cell proteins and converted to C14O2 at similar rates. Protein catabolic rates of cell cultures were studied by labeling the cell proteins with leucine-1-C14 and measuring the subsequent transfer of radioactivity into the culture medium. The cell protein catabolic rate, i.e., the percentage of initial total cell protein which is transferred to the nutrient trichloroacetic acid (TCA)-soluble fraction/day, is relatively constant at approx. 12.5%/day. The percentage of labeled protein found in the nutrient TCA-precipitable fraction was also relatively constant at approx. 5.2%/day. Overall disappearance rate of cell protein-C14 was constant and had a half-life of 2.7 days. Proteolytic enzyme activity was demonstrable in homogenates of Walker carcinoma cells in the degradation of denatured hemoglobin and native insulin-I131. Two pH optima (pH 4 and 7.5) were found for the hydrolysis of insulin-I131. The activity at pH 7.5 was greater than that at 4. Although growing cultures of Walker tumor cells split insulin-I131 extensively, proteolytic breakdown of native C14-labeled rat plasma proteins was not detected. The gross capacity of homogenates of cultured Walker tumor cells to hydrolyze 41 synthetic peptides was qual. studied with paper chromatographic methods. Many di- and tripeptides were split rapidly; peptides containing proline, lysine, and histidine, as well as amide derivs., were broken less rapidly than were leucyl derivs. Carbobenzoxy peptides, L-tyrosine ethyl ester, N-acetyl-L-tyrosine ethyl ester, and benzoyl-L-arginine ethyl ester were not hydrolyzed.

IT **2489-13-6**, Histidine, N-glycyl-, L-
(metabolism by carcinoma)
RN 2489-13-6 HCAPLUS
CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

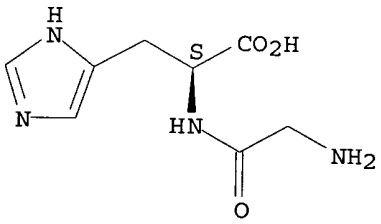


L46 ANSWER 278 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1960:80877 HCAPLUS
DOCUMENT NUMBER: 54:80877
ORIGINAL REFERENCE NO.: 54:15477b-d
TITLE: The association of bivalent cations with acylated histidine derivatives
AUTHOR(S): Martin, R. Bruce; Edsall, John T.
CORPORATE SOURCE: Harvard Univ.
SOURCE: Journal of the American Chemical Society (1960), 82, 1107-11
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB This study is concerned with the effect on the amide linkage of the binding of bivalent metal at the imidazole group in acylated histidine derivs. The association of the bivalent cations Cu, Ni, Zn, Co, and Cd with acetyl-L-histidine, β-alanyl-L-histidine, glycyl-L-histidine, and histidylhistidine was studied by potentiometric methods. It was determined that simple association of metal ions with the imidazole moiety of the histidyl residue of proteins is to be expected in most cases. Results are tabulated.

IT **2489-13-6**, Histidine, N-glycyl-, L-
(interaction with bivalent cations)
RN 2489-13-6 HCAPLUS
CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L46 ANSWER 279 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1959:72316 HCAPLUS
DOCUMENT NUMBER: 53:72316
ORIGINAL REFERENCE NO.: 53:13072e-g
TITLE: Synthesis and use of L-histidine benzyl ester
AUTHOR(S): Akabori, Shiro; Sakakibara, Shumpei; Shiina, Sumiko
CORPORATE SOURCE: Univ. Osaka.
SOURCE: Bulletin of the Chemical Society of Japan (1958), 31, 784-5

CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

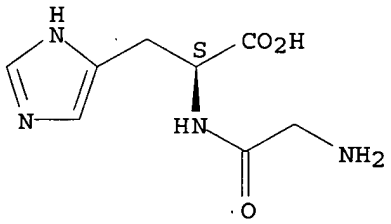
AB Powdered L-histidine-HCl.H2O (20 g.), 44 g. p-toluenesulfonic acid, 100 ml. benzyl alc., and 100 ml. CHCl3 refluxed 30 hrs. in a Wieland apparatus (cf. W., et al., C.A. 51, 11984d), the CHCl3 distilled, the product repptd. from CHCl3 by dry Et2O, and crystallized from dry 1:2 dioxane-Et2O gave 85-90% histidine benzyl ester bis-(p-toluenesulfonate) (I), [α]30D 2.4° (c 4.7, H2O). I sintered at 82-5° and decomposed at 225° after drying in vacuo at ordinary temperature and m. 146-9° after drying in vacuo at 135°. I is considerably soluble in dry CHCl3 and a solution of I and an equivalent amount of Et3N in CHCl3 can be used as the free benzyl ester solution for peptide synthesis. The histidine benzyl esters of the carbobenzoxy derivs. of glycine (yield 77.9%, m. 99-100.2°, [α]30D 6.8°), threonine (66.5%, 137-7.5°, 16.4°), and phenylalanine (68.5°, 118-18.5°, 17.3°) were prepared Isovaleryl-L-histidine benzyl ester (7.6%, 144°, 23.6°) and glycylhistidine-HCl (80.0%, 174-5°, 28.5°) were also prepared

IT **3486-76-8**, Histidine, N-glycyl-, L-, hydrochloride (preparation of)

RN 3486-76-8 HCAPLUS

CN L-Histidine, glycyl-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L46 ANSWER 280 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1957:52249 HCAPLUS
DOCUMENT NUMBER: 51:52249
ORIGINAL REFERENCE NO.: 51:9732c-g

TITLE: Zinc complexes of histidyl-peptides

AUTHOR(S): Weitzel, Gunther; Schneider, Friedhelm; Fretzdorff, Anna Maria
CORPORATE SOURCE: Justus Liebig Hochschule, Giessen, Germany

SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie (1957), 307, 23-35
CODEN: HSZPAZ; ISSN: 0018-4888
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. preceding abstract A series of peptides containing histidine were synthesized. These peptides, together with carnosine and DL-histidyl-DL-histidine, are imidazole derivs. and have a strong affinity for Zn. Zn-histidyl-peptides in the form of 1:2 and, in some cases, 1:1

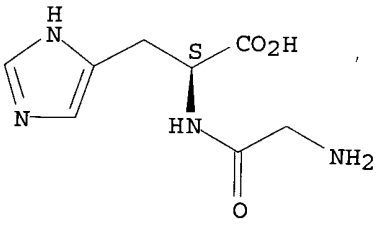
complexes were prepared Most of the complexes were very soluble in H2O and resistant to hydrolysis. Exptl. evidence indicated that the linkages might be of several types, such as imidazole-Zn-imidazole, imidazole-Zn-carboxylate in 1:1:1 ratios, imidazole-Zn-X2 (where X represents anions such as chloride, sulfate, or acetate, the complex being a double salt), and imidazole-Zn-OH in 1:1:1 ratios. The importance of this complexing in proteins, with special reference to the structure of insulin, is discussed. The analysis of the complexes was carried out by paper chromatography, dithizone in CHCl3 being used to determine the Zn and ninhydrin to determine the peptide. When fatty acids were complexed, methyl red was used as the indicator for them. The peptides were synthesized by the use of standard methods using the carbobenzoxy group to protect the amino groups. The new compds. synthesized were glycyl-L-histidine, m. 178°; carbobenzoxy-L-asparagyl-L-histidine, m. 163°; L-asparagyl-L-histidine, m. 193-5°, [α]D20 -10° in 1% solution; carbobenzoxy-L-histidylglycine ethyl ester, m. 114-15°; carbobenzoxy-L-histidylglycine, m. 230-1°; L-histidylglycine, m. 180-2°, [α]D20 -24° in 1% solution; carbobenzoxy-DL-histidine hydrazide, m. 160-1°; the ethyl ester of carbobenzoxy-DL-histidyl-DL-alanine, m. 116-19°; carbobenzoxy-DL-histidyl-DL-alanine, m. 230-2°; DL-histidyl-DL-alanine, m. 224-5°; the methyl ester of carbobenzoxy-DL-histidyl-DL-leucine, m. 119-21°; carbobenzoxy-DL-histidyl-DL-leucine, m. 210-12°; DL-histidyl-DL-leucine, m. 203-4°; the methyl ester of carbobenzoxyglycyl-L-histidyl-L-leucine, m. 190°; carbobenzoxyglycyl-L-histidyl-L-leucine, m. 187-9°; glycyl-L-histidyl-L-leucine, m. 256-8°, [α]D20 +27° in 1% solution in 1N HCl.

IT **2489-13-6**, Histidine, N-glycyl- (and zinc complexes)

RN 2489-13-6 HCAPLUS

CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L46 ANSWER 281 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1957:25946 HCAPLUS

DOCUMENT NUMBER: 51:25946

ORIGINAL REFERENCE NO.: 51:5158e-i,5159a-d

TITLE: Action of proteolytic enzymes on some peptides and derivatives containing histidine

AUTHOR(S): Davis, Neil C.

CORPORATE SOURCE: Univ. of Utah, Salt Lake City

SOURCE: Journal of Biological Chemistry (1956), 223, 935-47 CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB L-Histidine-HCl (30 g.) refluxed 1 hr. in 450 cc. absolute MeOH containing 8 cc. H2SO4, then 2. hrs. with dry HCl, and cooled yielded 33 g. L-histidine Me ester-2HCl, m. 200-1°. Carbobenzyloxy-β-alanyl-L-histidine Me ester (C.A. 50, 10087b) (3.74 g.) in 50 cc. EtOH treated with 2 cc. 95% N2H4.H2O, the mixture held 3 hrs. at 50°, cooled to 0°, and filtered yielded 78% carbobenzyloxy-β-alanyl-L-histidine hydrazide, m. 188-9°. By the same process, carbobenzyloxyglycyl-β-alanine Et ester yielded the corresponding hydrazide, m. 142-3°. The hydrazides were converted to the azides by method A or B. A. Carbobenzyloxy-L-histidine hydrazide (I) (3.03 g.) in 100 cc. 0.24N HCl treated at 0° with 1.24 g. NaNO2, the azide (II) treated after 2 min. with 50 cc. cold CHCl3 containing 2.1 g. glycine benzyl ester-HCl and 2.8 cc. Et3N, the cold mixture stirred 30 min., and the solution concentrated to dryness yielded 3.5 g. carbobenzyloxy-L-histidylglycine benzyl ester, m. 134-6°. B. I (3.03 g.) in 15 cc. 2N HCl treated at 0° with 0.7 g. NaNO2, 50 cc. cold CHCl3 containing 2.8 cc. Et3N added after 2 min., the dried solution added to cold CHCl3 containing 1.97 g. glycylglycine Et ester-HCl and 1.4 cc. Et3N, and the mixture allowed to stand overnight yielded 3.0 g. carbobenzyloxy-L-histidylglycylglycine Et ester, 180-80.5°. II with a 3-fold excess of NH4OH yielded 81% amide.1/2H2O, (III), m. 196-7°. II and PhNH2 yielded 20% anilide, m. 174-5°. III on reduction yielded 64% L-histidinamide-2HCl, m. 260-1°, [α]D20 22.0° (c 1, water). The ester (1.4 g.) in 10 cc. 50% dioxane treated with 4 cc. N NaOH, the mixture held 18 hrs., filtered, the filtrate adjusted to pH 5.8 with 0.8 cc. 5N H2SO4, and concentrated to dryness in vacuo yielded 1.0 g. carbobenzyloxy-β-alanyl-L-histidylglycine, m. 166-7°. The Me ester (1.5 g.) in 15 cc. MeOH saponified 1 hr. with 1.1 equivalent N NaOH and the product treated with 1.1 equivs. N HCl in 10 cc. water yielded 1.6 g. carbobenzyloxy-L-histidyl-L-phenylalanine, m. 230-30.5°. Carbobenzyloxy-L-histidyl-L-tyrosine.1/2H2O was obtained in 22% yield, m. 232-3°. Carbobenzyloxy-L-tryptophan (IV) (6.8 g.) converted to the acid chloride in EtOAc, the product coupled with the free ester from 5.6 g. glycine Et ester-HCl, the mixture held 1 hr., filtered, and the filtrate concentrated yielded 5.2 g. Et ester (V), m. 120°. V (3.9 g.) treated 2 days at room temperature with 50 cc. MeOH saturated at 0°, and the product repeatedly concentrated in vacuo with MeOH yielded 5-indolylhydantoin-3-acetamide, m. 196°. IV (3.38 g.) in 2 cc. dioxane treated with 1.4 cc. Et3N at 0°, the product treated with 2 cc. iso-Bu chlorocarbonate, allowed to stand 10 min., treated with 1.1 g. CH2NH2CONH2-HCl in 5 cc. 2N NaOH, stirred 2 hrs., extracted with CHCl3, and the CHCl3 removed in vacuo yielded 2.0 g. carbobenzyloxy-L-tryptophylglycinamide, m. 135-6°. L-Histidylglycine-HCl-1/2H2O (81% yield) m. 229-30°, [α]D20 -8.43 (c 1, water). L-Histidyl-L-phenylalanine-HCl.H2O (26% yield) m. 193-4°, [α]D20 -2.05°(c 1, water). Leucine aminopeptidase hydrolyzed L-histidinamide (V) and peptides containing the carboxyl group of histidine in the peptide linkage. No hydrolysis of carnosine was detected and glycyl-L-histidine was hydrolyzed slowly. Crystalline carboxypeptidase hydrolyzed carbobenzyloxy dipeptides in which histidine was in the N-terminal position, but carbobenzyloxyglycyl-L-histidine was split at only 0.005 the rate for carbobenzyloxyglycyl-L-phenylalanine. Carnosinase hydrolyzed anserine at about half the rate of carnosine and also split β-alanyl-L-histidylglycine. V, carbobenzyloxy-L-histidinamide, and carbobenzyloxy-L-histidyl-L-leucinamide were relatively poor substrates for crystalline papain. The action of crystalline chymotrypsin on several carbobenzyloxydipeptide amides was

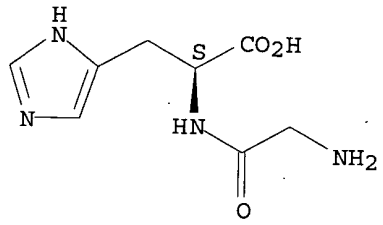
studied and the point at which hydrolysis occurred was established by means of paper chromatography. The histidine-containing compds. were poor substrates for this enzyme. Carbobenzyloxyglycyl-L-tryptophanamide (VI) and carbobenzyloxy-L-tryptophylglycinamide (VII) were excellent substrates for chymotrypsin, VI being hydrolyzed at both the peptide and amide bonds, and VII only at the peptide bond.

IT **2489-13-6**, Histidine, N-glycyl-, L-
(hydrolysis by proteases)

RN 2489-13-6 HCAPLUS

CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L46 ANSWER 282 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1957:17877 HCAPLUS

DOCUMENT NUMBER: 51:17877

ORIGINAL REFERENCE NO.: 51:3741a-c

TITLE: Essential role of histidine peptides in tetanus toxin production

AUTHOR(S): Mueller, J. Howard; Miller, Pauline A.

CORPORATE SOURCE: Harvard Med. School, Boston, MA

SOURCE: Journal of Biological Chemistry (1956), 223, 185-94
CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

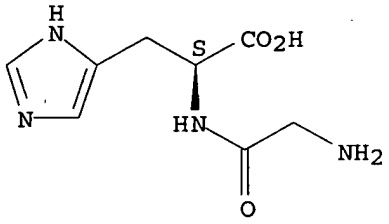
AB cf. C.A. 48, 7111a. A pancreatic digest of casein, the key material in a defined medium for the production of tetanus toxin, was separated into 3 main fractions by means of reversible resin columns: (1) an acidic (2) a neutral, and (3) a basic fraction. The participation of the basic fraction in the production of toxin was elucidated. By means of Ag precipitation
it was separated into 3 subfractions; free arginine and lysine substituted for the corresponding 2 subfractions, and the essential component in the histidine fraction was identified as histidine in peptide linkage. Synthetic histidine peptides substitute for the naturally occurring material, and differences in their effect on toxin production were observed. Glycyl-L-histidine and α-amino-butyryl-L-histidine were the most active of those tested. Carnosine or acetyl-L-histidine will substitute but good toxin is produced only when large amts. are used. Free L-histidine is without effect on toxin production but supports growth of the organism. Preliminary expts. on the remaining unknown components in the acidic and neutral fractions indicate that they may also be peptide in nature.

IT **2489-13-6**, Histidine, N-glycyl-, L-
(in tetanus-toxin production)

RN 2489-13-6 HCAPLUS

CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

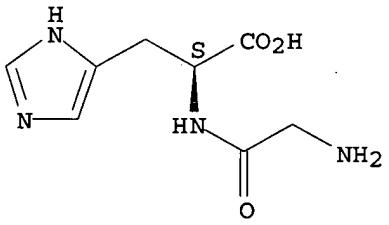


L46 ANSWER 283 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1955:46705 HCAPLUS
DOCUMENT NUMBER: 49:46705
ORIGINAL REFERENCE NO.: 49:9094h-i,9095a
TITLE: The degradation of histidine by Aerobacter aerogenes
AUTHOR(S): Magasanik, Boris; Bowser, Helen R.
CORPORATE SOURCE: Harvard Med. School, Boston, MA
SOURCE: Journal of Biological Chemistry (1955), 213, 571-80
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. preceding abstract The degradation of L-histidine by histidine-grown A. aerogenes was studied in resting-cell suspensions, vacuum-dried cells, and cell-free exts. Exposure of the cells to histidine induces the formation of enzymes which attack L-histidine, urocanic acid, L-α-formamidinoglutaric acid (I), and glutamic acid. Histidine is converted via urocanic acid and I to an equimolar mixture of NH3, HCONH2, and glutamic acid; the glutamic acid is oxidized by resting cells to CO2, water, and NH3. The pathways of histidine degradation by Pseudomonas fluorescens and by A. aerogenes were compared. In both organisms histidine is converted to I, which is also the final product of histidine metabolism in mammalian liver. Exts. of P. fluorescens hydrolyze I in 2 steps via N-formyl-L-glutamic acid to NH3, HCO2H, and glutamic acid. Exts. of A. aerogenes hydrolyze I to HCONH2 and glutamic acid.

IT **2489-13-6**, Histidine, N-glycyl-
(utilization by Aerobacter aerogenes)
RN 2489-13-6 HCAPLUS
CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L46 ANSWER 284 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1954:32469 HCAPLUS
DOCUMENT NUMBER: 48:32469
ORIGINAL REFERENCE NO.: 48:5798i,5799a-g

TITLE: Synthesis of carnosine and related peptides by the phthaloyl method
AUTHOR(S): Turner, Robert A.
CORPORATE SOURCE: State Univ. of New York, Brooklyn, NY
SOURCE: Journal of the American Chemical Society (1953), 75, 2388-90
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The condensation of N-phthaloyl-β-alanyl chloride (I) with L-histidine (II) in the presence of Et3N at low temperature yielded N-(N-phthaloyl-β-alanyl)histidine (III) which was converted with N2H4 to carnosine (IV). Several related peptides have also been prepared by the present method. Equimolar amts. of o-C6H4(CO)2O and β-alanine fused 25 min. at 175° yielded 97% N-phthaloyl-β-alanine (V), m. 152-3°. The Me ester (VI), fine needles, m. 72-4°, was prepared from I and MeOH. To 4.20 g. histidine-HCl.H2O and 2.42 g. MgO in 75 cc. H2O and 15 cc. dioxane was added dropwise during 24 min. with stirring 4.74 g. I at -8°, the mixture stirred 0.5 hr. while it was being warmed to 10°, let stand overnight, acidified with 2N HCl, distilled to dryness in vacuo, esterified with MeOH and HCl, and evaporated, the residue dissolved in 20 cc. H2O, made slightly alkaline by adding gradually 50 cc. 4% aqueous Na2CO3, the precipitated colorless plates of VI, m. 70°, (2.40 g.), filtered off, the filtrate treated with 25 cc. aqueous Na2CO3, let stand 1 hr. in the cold, the precipitate, m. 180-5°, (2.84 g.) filtered off, and the filtrate let stand to give addnl. 0.45 g. solid; the combined solid recrystd. by dissolving in 0.5N HCl, treating the solution with C, and neutralizing with 4% aqueous Na2CO3 gave 1.50 g. N-(N-phthaloyl-β-alanyl)histidine Me ester (VII), m. 190-1°. To 4.20 g. II.HCl.H2O in 40 cc. H2O and 2.9 cc. Et3N was added at -8° 5.20 g. I in 25 cc. dioxane slowly in 2 equal portions, the 1st portion during 25 min. followed by 2.9 cc. Et3N, and then the 2nd portion in the same manner, the mixture stirred while allowed to come to room temperature, distilled to dryness in vacuo, the residue diluted with 20 cc. PrOH, the distillation repeated, the residue warmed with 4.0 cc. H2O, then treated with 25 cc. PrOH, let stand in the cold, and the deposit of 4.30 g. colorless crystals, m. 215-19° (decomposition), filtered off, washed with PrOH, and recrystd. from 4.0 cc. H2O and 20 cc. MeOH to yield 3.60 g. (50%) III, decompose 221-4°, [α]22D 21.5° (1%, H2O), esterified with MeOH and HCl to VII. III (3.21 g.) in 12 cc. H2O treated with 3.0 cc. 5M (NH2)2.H2O in EtOH, the mixture let stand 2 days, diluted with 25 cc. H2O, acidified with 0.8 cc. glacial AcOH, the white precipitated phthaloylhydrazide salt of IV filtered off and washed well with H2O, the slightly acidic filtrate evaporated in vacuo, the residue dissolved in 10-cc. portions of H2O and evaporated twice, the residue dissolved in 3.0 cc. warm H2O, the solution made slightly alkaline with concentrated NH4OH, treated with 20 cc. hot absolute EtOH, and the solid product filtered off gave 1.75 g. (86%) IV, m. 250-3° (decomposition); recrystd., it m. 253-6°, [α]22D 21.7° (1.1%, H2O). To 2.67 g. DL-alanine and 6.3 cc. Et3N in 20 cc. H2O cooled to -15° was added sufficient Me2CO to prevent freezing, half of a solution of 7.85 g. I in 50 cc. dioxane added during 25 min., then 2.8 cc. Et3N, and finally the remainder of the I solution, the mixture warmed with stirring to room temperature, distilled to dryness in vacuo, the residue taken up in 25 cc. PrOH, distilled again, dissolved in 50

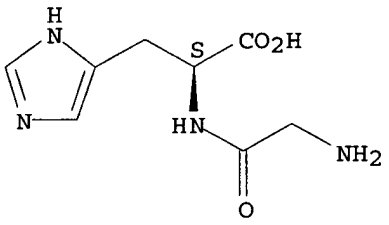
cc. H2O, acidified with HCl to Congo red, cooled, and recrystd. from EtOH to give 65% N-(N-phthaloyl-β-alanyl)-DL-alanine, m. 209-12°. Similarly were prepared the N-(N-phthaloyl-β-alanyl) derivs. of: L-asparagine, 60%, m. 185-7°; L-leucine, 40%, m. 113-17°; DL-serine, 55%, m. 195-6°; L-tyrosine, 40%, m. 193-4°. N-(N-Phthaloylglycyl) derivs. of: L-histidine, 40%, 258-62°; DL-phenylalanine, 80%, m. 194-7°; L-tyrosine, 45%, m. 241-4°. N-β-Alanyl derivs. of: L-leucine, 80%, 259-60°; DL-serine, 80%, 209-10°. N-Glycyl-L-histidine, 60%, m. 175-6°.

IT **2489-13-6**, Histidine, N-glycyl-, L-
(preparation of)

RN 2489-13-6 HCAPLUS

CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L46 ANSWER 285 OF 285 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1931:45742 HCAPLUS

DOCUMENT NUMBER: 25:45742

ORIGINAL REFERENCE NO.: 25:5180e-h

TITLE: The behavior of dipeptides containing l-histidine toward erepsin and trypsin-kinase

AUTHOR(S): Abderhalden, Emil; Geidel, Werner

SOURCE: Fermentforschung (1931), 12, 518-31
CODEN: FEFOAG; ISSN: 0367-2034

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB In the preparation of histidine peptides it is advisable to couple histidine ester with the haloacyl halide and aminate the reaction product before saponification Otherwise the halogen splits off during saponification, leaving a hydroxyacylhistidine. A notable exception is bromoisocaproylhistidine ester which can be saponified and then aminated. Most of the products were amorphous and had no sharp m. ps. Histidine Me ester (I) + ClCH2COCl in CHCl3 at -5° → chloroacetyl-l-histidine Me ester → glycyl-l-histidine, m. 130-55° and hydroxyacetyl-l-histidine. I + MeCHBrCOBr → dl-α-bromopropionyl-l-histidine Me ester → dl-alanyl-l-histidine containing 1 H2O. I + Me2CHCHBrCOBr → dl-α-bromoisovaleryl-l-histidine Me ester → dl-valyl-l-histidine, m. 115° (foaming). I + Me2CHCH2CHBrCOCl → dl-α-bromoisocaproyl-l-histidine Me ester, m. 171° → dl-α-bromoisocaproyl-l-histidine, m. 117° → dl-leucyl-l-histidine. Histidine ester HCl salt + MeONa → l-histidine anhydride, containing 1 H2O [α]D20 -63.9°, + 0.1 N NaOH → l-histidyl-l-histidine. I + ClCH2CH2COCl → β-chloropropionyl-l-histidine Me ester → β-alanyl-l-histidine, (carnosine), m. 185° (foaming). Carnosine, m.

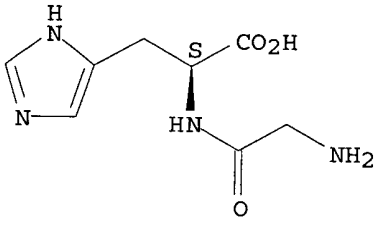
243°, was also prepared from horse meat by the Gulewitch method. Both prepns. gave PhNCO derivs. which darkened at 205° and m. 226°, and were hydrolyzed by HCl into β-alanine PhNCO derivative m. 169° and histidine, m. 253°. Cu salts of the 6 peptides were prepared and analyzed. None of the peptides was attacked by trypsin-kinase. Erepsin hydrolyzed only l-histidyl-l-histidine to any considerable extent. An extract of pancreas powder had no effect on carnosine.

IT **2489-13-6**, Histidine, N-glycyl-
(preparation of)

RN 2489-13-6 HCAPLUS

CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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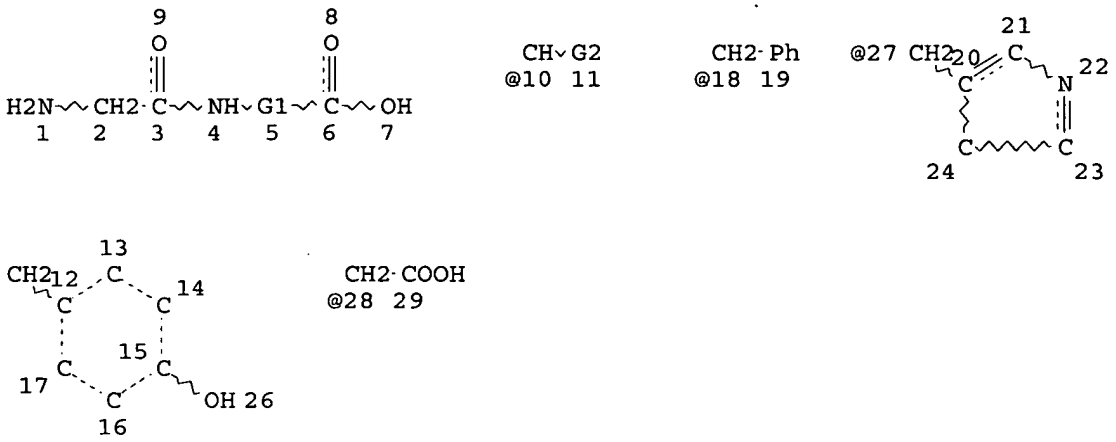

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

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L24	54607	SEA	FILE=HCAPLUS ABB=ON PLU=ON TUMOR NECROSIS FACTORS+PFT,NT/

CT

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L26 28334 SEA FILE=HCAPLUS ABB=ON PLU=ON BONE MORPHOGENETIC PROTEINS+PFT,NT/CT OR MORPHOGEN?

L27 401866 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 OR L26

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L30 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND L29

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L30 ANSWER 1 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:34613 HCAPLUS

DOCUMENT NUMBER: 142:120554

TITLE: Bronchodilating β-agonist compositions

INVENTOR(S): Banerjee, Partha S.; Akapo, Samuel O.; Chaudry, Imtiaz A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005009923	A1	20050113	US 2004-887785	20040709
WO 2005007142	A2	20050127	WO 2004-US22217	20040709

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

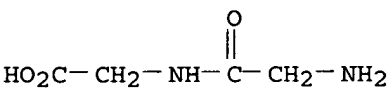
PRIORITY APPLN. INFO.: US 2003-486386P P 20030710

AB Bronchodilating compns. and methods are provided. The compns. are intended for administration as a nebulized aerosol. In certain embodiments, the compns. contain formoterol, or a derivative thereof. Methods for treatment, prevention, or amelioration of 1 or more symptoms of bronchoconstrictive disorders using the compns. provided herein are also provided. Thus, an inhalation solution contained formoterol fumarate dihydrate 0.00105, citric acid monohydrate 0.135, sodium citrate dihydrate 0.400, NaCl 0.785, and water qs to 100 kg.

IT **556-50-3**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bronchodilating -agonist compns.)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)

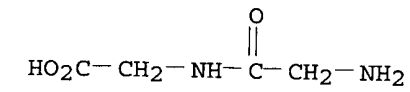


L30 ANSWER 2 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1060761 HCAPLUS
DOCUMENT NUMBER: 142:36914
TITLE: Multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector molecules
INVENTOR(S): Kiessling, Laura L.; Griffith, Byron R.; Gestwicki, Jason E.; Strong, Laura
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 76 pp., Cont.-in-part of U.S. Ser. No. 815,296.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004248801	A1	20041209	US 2004-806056		20040322
US 2003125262	A1	20030703	US 2001-815296		20010321
PRIORITY APPLN. INFO.:			US 2000-191014P	P	20000321
			US 2001-815296	A2	20010321
			US 2003-456778P	P	20030321

AB This invention provides multivalent ligands which carry or display at least one recognition element (RE), and preferably a plurality of recognition elements, for binding directly or indirectly to cells or other biol. particles or more generally by binding to any biol. mol. The multivalent ligands provided can most generally function for binding or targeting to any biol. particle or mol. and particularly to targeting of cells or cell types or viruses, for cell aggregation and generally for macromol. assembly of biol. macromols. The multivalent ligands of this invention are generally applicable for creating scaffolds (assemblies) of chemical or biol. species, including without limitation, antigens, epitopes, ligand binding groups, ligands for cell receptors (cell surface receptors, transmembrane receptors and cytoplasmic receptors), and various macromols. (nucleic acids, carbohydrates, saccharides, proteins, peptides, etc.). In these scaffolds, the number, spacing, relative positioning and relative orientation of recognition elements can be controlled. Multivalent ligands of this invention can carry or display at least one signal recognition element (SRE), and preferably a plurality of signal recognition elements, and modulate biol. responses in biol. systems. The SRE is selected from an amino acid, peptide, protein, derivatized peptide, epitope, monosaccharide, disaccharide, polysaccharide, nucleic acid, cell nutrient, antigen, small drug-like compound, hapten, antibody or fragment, or cell surface receptor. Multivalent ligands of this invention can carry or display at least one binding recognition element (BRE), and preferably a plurality of binding recognition elements, optionally in combination with one or more SRE, and modulate biol. responses in biol. systems. The invention also relates to methods for aggregating biol. particles and macromols. and for modulating biol. response employing the multivalent ligands provided.

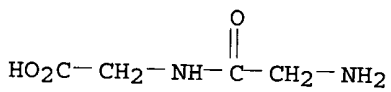
IT **556-50-3**, Diglycine
RL: RCT (Reactant); RACT (Reactant or reagent)
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 3 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:100805 HCAPLUS
DOCUMENT NUMBER: 140:151959
TITLE: Inhalation compositions containing buffers and anti-inflammatory agents
INVENTOR(S): Banerjee, Partha S.; Malladi, Ramana R.; Chaudry, Imtiaz A.
PATENT ASSIGNEE(S): Dey, L.P., USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004023935	A1	20040205	US 2002-212573	20020802
PRIORITY APPLN. INFO.:			US 2002-212573	20020802

AB Bronchodilating concs. and diluted compns., methods of use thereof, and processes for making the concs. and diluted compns., are provided. The compns. are intended for administration as a nebulized aerosol. Methods for treatment, prevention, or amelioration of one or more symptoms of bronchoconstrictive disorders using the compns. provided herein are also provided. Thus, a composition contained Fluticasone propionate 150 μg/mL, TPGS 4, propylene glycol 1.67, glycerin 2, NaCl 0.1, and water 92.1% by weight, and buffer 2 mM.
IT **556-50-3**, Glycylglycine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhalation compns. containing buffers and anti-inflammatory agents)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 4 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:847666 HCAPLUS
DOCUMENT NUMBER: 140:82032
TITLE: 2,3,5,6-Tetrafluorophenyl N-(S-

Benzoylthioacetyl)glycylglycyl- p-aminobenzoate, a Heterobifunctional 99mTc Ligand for Precomplexed Antibody Labeling

AUTHOR(S): Sanchez, O. Calderon; Mohammed, A.; Mier, W.; Graham, K.; Schuhmacher, J.; Arndt, S. O.; Haberkorn, U.; Mocelo, R.; Eisenhut, M.

CORPORATE SOURCE: Department of Nuclear Medicine, University of Heidelberg, Heidelberg, Germany

SOURCE: Bioconjugate Chemistry (2003), 14(6), 1209-1213
CODEN: BCCHES; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

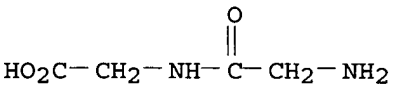
LANGUAGE: English

AB Heterobifunctional 99mTc ligands are useful for antibody labeling using the precomplexation route. The aim of this work was to synthesize a ligand, which has sufficient chemical stability to be complexed with 99mTc without inactivating the reactive conjugation group. Using 2,3,5,6-tetrafluorophenyl N-(S-benzoylthioacetyl)glycylglycyl-p-aminobenzoate (OC2) >60% of the 99mTc complex was obtained at 80 °C in 20 min, which was separated from the free ligand and impurities by HPLC. After solvent evaporation, 99mTc-OC2 was conjugated with the monoclonal antibody mAb425 in 50% radiochem. yield. In all, the labeling method required about 1 h preparation time. The immunoreactive fraction of the 99mTc-OC2 mAb425 conjugate was 81%, indicating preserved binding capability after conjugation. Compared to recently described methods, which need in situ activation of the 99mTc complex, the application of OC2 saved time and reduced the number of manipulations with radioactive material.

IT **556-50-3**, Glycylglycine
RL: RCT (Reactant); RACT (Reactant or reagent)
(heterobifunctional 99mTc ligand for precomplexed antibody labeling)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:633485 HCAPLUS

DOCUMENT NUMBER: 139:169346

TITLE: HPMA-polyamine conjugates for nucleic acid delivery

INVENTOR(S): Ghandehari, Hamidreza; Woodle, Martin C.; Scaria, Puthupparampil V.; Nan, Anjan

PATENT ASSIGNEE(S): Intradigm Corporation, USA

SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066068	A1	20030814	WO 2003-US2707	20030131

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-352883P P 20020201

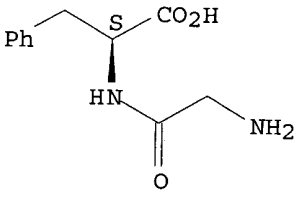
AB The inventions provide compns. and methods for nucleic acid delivery comprising HPMA conjugated to a polyamine. These compns. have the benefit of the steric hindrance of HPMA and the nucleic acid binding capability of a polyamine. Useful polyamines for this purpose include spermine, spermidine and their analogs, and DFMO. These polyamines have the ability not only to bind nucleic acids, but also have anti-cancer effects themselves. The compds. provided can also include ligand binding domains, such as vascular endothelial **growth factors**, somatostatin and somatostatin analogs, transferring, melanotropin, ApoE and ApoE peptides, von Willebrand's factor and von Willebrand's factor peptides, adenoviral fiber protein and adenoviral fiber protein peptides, PD 1 and PD 1 peptides, EGF and EGF peptides, RGD peptides, CCK peptides, antibody and antibody fragments, folate, pyridoxyl and sialyl-LewisX and chemical analogs. One example copolymer prepared was methacryloylglycylphenylalanyl-leucylglycine p-nitrophenyl ester with HPMA.

IT **3321-03-7**, GLYCYLPHENYLALANINE
RL: RCT (Reactant); RACT (Reactant or reagent)
(HPMA-polyamine conjugates for nucleic acid delivery)

RN 3321-03-7 HCAPLUS

CN L-Phenylalanine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 6 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:356466 HCAPLUS

DOCUMENT NUMBER: 138:374161

TITLE: Biocompatible polymers including peptide spacer

INVENTOR(S): Park, Myung-Ok

PATENT ASSIGNEE(S): Biopolymed Inc., S. Korea

SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

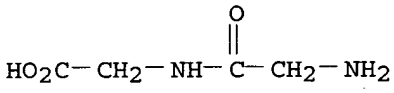
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003037915	A1	20030508	WO 2002-KR2036	20021031
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2003036081	A	20030509	KR 2002-67295	20021031
US 2003185798	A1	20031002	US 2003-380498	20030314
PRIORITY APPLN. INFO.:			KR 2001-67369 A	20011031
			WO 2002-KR2036 W	20021031

AB The present invention relates to new biocompatible polymer derivs. including peptide spacers and their methods of preparation The present invention also relates to the conjugates formed by covalent or non-covalent bonding and their methods of preparation These biocompatible polymers with peptide spacers providing regions of hydrophobicity and pos. charge can enhance their interaction with cell membrane to increase the cell trafficking, endosomal disruption, the circulation half-life in blood, and the stability of conjugated therapeutic drug. For example, (mPEG12000-OCH2CO-Gly-Gly)2 (2,4-diaminobutyric acid)-Gly-COOH was prepared and conjugated with paclitaxel.

IT **556-50-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of biocompatible polymers containing peptide spacer for drug delivery)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 7 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2003:221915 HCAPLUS
DOCUMENT NUMBER:	138:251100
TITLE:	Assay buffer, compositions containing the same, and methods of using the same
INVENTOR(S):	Tsionsky, Michael; Glezer, Eli N.; Altunata, Selen; Sigal, George; Leland, Jonathan K.; Billadeau, Mark A.; Leytner, Svetlana; Martin, Mark; Helms, Larry
PATENT ASSIGNEE(S):	Meso Scale Technologies, LLC, USA
SOURCE:	PCT Int. Appl., 103 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	3
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003023380	A1	20030320	WO 2002-US28803	20020910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003175803	A1	20030918	US 2002-238437	20020910
EP 1436598	A1	20040714	EP 2002-759622	20020910
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PRIORITY APPLN. INFO.:			US 2001-318289P	P 20010910
			US 2002-363498P	P 20020311
			WO 2002-US28803	W 20020910

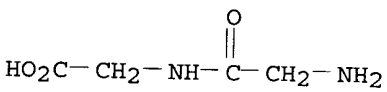
AB Compns., reagents, kits, systems, system components, and methods for performing assays. More particularly, the invention relates to the use of novel combinations of reagents to provide improved assay performance.

IT **556-50-3**

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(assay buffer, compns. containing the same, and methods of using the same)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 8 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:202520 HCAPLUS

DOCUMENT NUMBER: 138:226821

TITLE: Methods for sterilizing preparations containing albumin

INVENTOR(S): Griko, Yuri; Miekka, Shirley I.; Burgess, Wilson H.; Drohan, William N.; MacPhee, Martin J.; Kent, Randall S.; Mann, David M.

PATENT ASSIGNEE(S): Clearant, Inc., USA

SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020325	A2	20030313	WO 2002-US27947	20020903

WO 2003020325 A3 20030717
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
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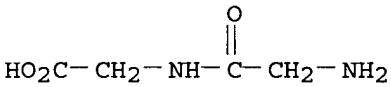
US 2003213920 A1 20031120 US 2001-942941 20010831
EP 1432454 A2 20040630 EP 2002-797840 20020903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
JP 2005505552 T2 20050224 JP 2003-524630 20020903
PRIORITY APPLN. INFO.: US 2001-942941 A 20010831
WO 2002-US27947 W 20020903

AB Methods are disclosed for sterilizing prepns. containing albumin to reduce the level of one or more active biol. contaminants or pathogens therein, such as viruses, bacteria (including inter- and intracellular bacteria, such as mycoplasmas, urea plasmas, nanobacteria, chlamydia, rickettsias), yeasts, molds, fungi, prions or similar agents responsible, alone or in combination, for transmissible spongiform encephalopathy and/or single or multicellular parasites. These methods involve sterilizing prepns. containing albumin, such as plasma protein fractions, with irradiation

IT **556-50-3**, Glycyl-glycine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods for sterilizing prepns. containing albumin)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 9 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:133788 HCAPLUS
DOCUMENT NUMBER: 138:193270
TITLE: Salt/ion pair medicinal aerosol formulation
INVENTOR(S): Adjei, Akwete L.; Zhu, Yaping; Kline, Lukeysha; Stefanos, Simon G.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003035774	A1	20030220	US 2001-908017	20010718
WO 2003007867	A2	20030130	WO 2002-US22475	20020715
WO 2003007867	A3	20030731		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

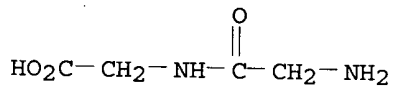
EP 1406592 A2 20040414 EP 2002-761105 20020715
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
JP 2005500328 T2 20050106 JP 2003-513476 20020715
PRIORITY APPLN. INFO.: US 2001-908017 A 20010718
WO 2002-US22475 W 20020715

AB An aerosol formulation comprises (a) a salt/ion pair of a protein or peptide medicament having a mol. size of about 0.5-150 kilodalton, e.g., insulin, amylin, cytokines, hormones, **growth factors**, enzymes, nucleic acids, Igs, etc.; and (b) a fluid carrier. The ion pairs comprise a cation selected from Ca, Mg, Zn, Al, or Fe. The formulation further comprises a stabilizer selected from water addition or an amino acid or its derivative

IT **11096-26-7**, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(salt/ion pair of protein, peptide and other drugs for aerosol formulations)
RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **556-50-3**, Glycylglycine
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizer; salt/ion pair of protein, peptide and other drugs for aerosol formulations)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 10 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:794323 HCAPLUS
DOCUMENT NUMBER: 137:299955
TITLE: Bronchodilating aerosol compositions
INVENTOR(S): Banerjee, Partha S.; Pham, Stephen; Akapo, Samuel O.; Chaudry, Imtiaz A.
PATENT ASSIGNEE(S): Dey LP, USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

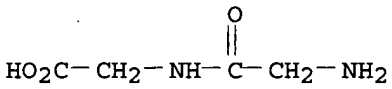
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002151597	A1	20021017	US 2001-887281	20010622
US 6667344	B2	20031223		
CA 2438544	AA	20021024	CA 2002-2438544	20020228
WO 2002083079	A2	20021024	WO 2002-US6240	20020228
WO 2002083079	A3	20030213		
WO 2002083079	C2	20030410		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1381346	A2	20040121	EP 2002-709742	20020228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004532217	T2	20041021	JP 2002-580884	20020228
US 2002151598	A1	20021017	US 2002-138866	20020503
US 6814953	B2	20041109		

PRIORITY APPLN. INFO.:	US 2001-284606P	P	20010417
	US 2001-887281	A	20010622
	WO 2002-US6240	W	20020228

AB Bronchodilating compns. and methods are provided. The compns. are intended for administration as a nebulized aerosol. In certain embodiments, the compns. contain formoterol, or a derivative Methods for treatment, prevention, or amelioration of one or more symptoms of bronchoconstrictive disorders using the compns. provided herein are also provided. To a stainless steel vessel were added 0.68 g citric acid, 1.99 g sodium citrate, and 17.5 g sodium chloride. Purified water USP (2 L) was added to the stainless steel vessel and the contents were mixed with an overhead stirrer at a speed of 240 rpm for 10 min. Formoterol fumarate dihydrate (0.17 g for low dosage strength formulation, 0.34 g for high dosage strength formulation) was added and the solution was stirred at 240 rpm for 90 min.

IT **556-50-3**, Glycylglycine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bronchodilating aerosol compns.)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



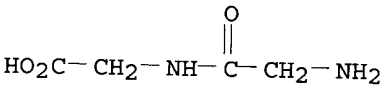
L30 ANSWER 11 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:734965 HCAPLUS
DOCUMENT NUMBER: 138:406735
TITLE: Stabilization of proteins by low molecular weight multi-ions
AUTHOR(S): MacLean, Donald S.; Qian, Quansheng; Middaugh, C. Russell

CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS, 66047, USA
SOURCE: Journal of Pharmaceutical Sciences (2002), 91(10), 2220-2229
CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method is described to identify small mol. ligands that stabilize proteins. The procedure is based on the hypothesis that mols. of various sizes containing two to four charges should occasionally bind to unpaired charged sites on the surface of proteins and by crosslinking such residues stabilize the native state of the liganded protein. A simple turbidity assay is employed that detects inhibition of protein aggregation under selected sets of conditions. Eight test proteins were screened and in all cases specific ligands were identified that inhibited protein aggregation at millimolar to micromolar concns. Only small effects of these stabilizers on protein biol. activities were found. In some, but not all cases, CD and fluorescence studies provided direct evidence of the binding of stabilizing ligands to the proteins suggesting multiple mechanisms of stabilization. This approach should be applicable to the development of excipients for the stabilization of pharmaceutical proteins and industrial enzymes as well as serve as starting points for second-generation inhibitors of increased affinity and specificity.

IT **556-50-3**, Diglycine
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilization of proteins by low mol. weight multi-ions)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 12 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:616193 HCAPLUS
DOCUMENT NUMBER: 137:174933
TITLE: Modulated-release polymeric silicate particles for aerosol delivery
INVENTOR(S): Zhu, Yaping; Stefanos, Simon; Adjei, Akwete L.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

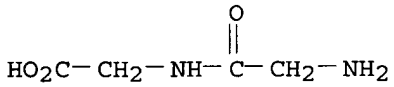
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002110528	A1	20020815	US 2001-784673	20010215
US 6544497	B2	20030408		
CA 2438218	AA	20020829	CA 2002-2438218	20020213

WO 2002066011 A1 20020829 WO 2002-US4286 20020213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1361860 A1 20031119 EP 2002-724942 20020213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004522769 T2 20040729 JP 2002-565571 20020213
PRIORITY APPLN. INFO.: US 2001-784673 A 20010215
WO 2002-US4286 W 20020213

AB A modulated release aerosol formulation comprises a polymer, e.g. silica gel or fumed silica gel, having a selected medicament associated there with, a fluid carrier for carrying and delivering the construct and a stabilizer. The polymer is present in an amount of about 0.000001-10%. A medicament comprises a protein or peptide with a mol. size of about 1-150 kD, such as insulin, amylin, an **interleukin**, an **interferon**, heparin, a thrombolytic, an antitrypsin, a hormone, a **growth factor**, an enzyme, etc. A stabilizer is selected from dipeptides and tripeptides. A method of treating in a human or an animal a condition capable of treatment by dermal, sublingual, buccal, oral, or nasal application comprises administering an aerosol formulation in a canister equipped with a metered dose valve.

IT **556-50-3**, Glycylglycine **9061-61-4**, Nerve **growth factor 11096-26-7**, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulated-release polymeric silicate particles for aerosol delivery)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 9061-61-4 HCAPLUS
CN Nerve growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L30 ANSWER 13 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:616190 HCAPLUS
DOCUMENT NUMBER: 137:174931
TITLE: Modulated release particles for pharmaceutical lung delivery
INVENTOR(S): Adjei, Akwete L.; Zhu, Yaping
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

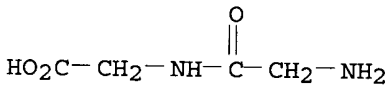
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002110525	A1	20020815	US 2001-784556	20010215
US 6551578	B2	20030422		
CA 2438170	AA	20020829	CA 2002-2438170	20020207
WO 2002066008	A1	20020829	WO 2002-US3992	20020207
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1361857	A1	20031119	EP 2002-709465	20020207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004522766	T2	20040729	JP 2002-565568	20020207
PRIORITY APPLN. INFO.:			US 2001-784556 A	20010215
			WO 2002-US3992 W	20020207

OTHER SOURCE(S): MARPAT 137:174931

AB A modulated release aerosol formulation is disclosed. The formulation comprises a polysaccharide polymer having a selected drug associated, a fluid carrier for carrying and delivering the construct and a stabilizer. The stabilizer is selected from the group consisting of an amino acid e.g., a monoaminocarboxylic acid, a monoaminodicarboxylic acid and a diaminomonocarboxylic acid. The polysaccharide can be from alginic acid or a salt, e.g., guar gum, gum karaya, agar, carrageenan, and cellulose.

IT **556-50-3D**, Glycylglycine, esters or salts **9061-61-4**, Nerve **growth factor 11096-26-7**, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulated release particles for pharmaceutical lung delivery)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 9061-61-4 HCAPLUS
CN Nerve growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L30 ANSWER 14 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:449724 HCAPLUS

DOCUMENT NUMBER: 137:32068
TITLE: Rationally designed antibodies substituting CDR with hematopoietin peptide mimetic for diagnosis and therapy
INVENTOR(S): Bowdish, Katherine S.; Barbas-Frederickson, Shana; Renshaw, Mark
PATENT ASSIGNEE(S): Alexion Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046238	A2	20020613	WO 2001-US47656	20011205
WO 2002046238	A3	20030710		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2436671	AA	20020613	CA 2001-2436671	20011205
AU 2002034001	A5	20020618	AU 2002-34001	20011205
EP 1370589	A2	20031217	EP 2001-985007	20011205
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EP 1498429	A2	20050119	EP 2004-77553	20011205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.:

US 2000-251448P	P	20001205
US 2001-288889P	P	20010504
US 2001-294068P	P	20010529
EP 2001-985007	A3	20011205
WO 2001-US47656	W	20011205

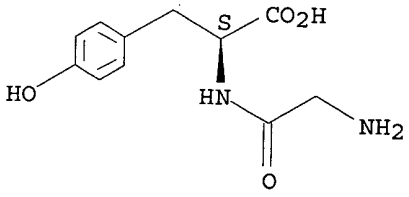
AB Antibodies or fragments thereof having CDR regions replaced or fused with biol. active peptides are described. The antibody is human anti-tetanus toxoid antibody, and the biol. active peptide is selected from thrombopoietin peptide mimetic or **erythropoietin** peptide mimetic. The antibody-peptide fusion product also comprises flanking sequence(s) that may optionally be attached at one or both the carboxy-terminal and amino-terminal ends of the peptide in covalent association with adjacent framework regions. Compns. containing such antibody or fragment fusion products are useful in therapeutic and diagnostic modalities, e.g. for stimulating proliferation, differentiation, or growth of megakaryocytes, hematopoietic stem cells, or progenitors, and for increasing production of platelets or red blood cells.

IT **11096-26-7D**, **Erythropoietin**, peptide mimetics
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(rationally designed antibodies substituting CDR with hematopoietin

peptide mimetic for diagnosis and therapy)
RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **658-79-7**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(rationally designed antibodies substituting CDR with hematopoietin peptide mimetic for diagnosis and therapy)
RN 658-79-7 HCAPLUS
CN L-Tyrosine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



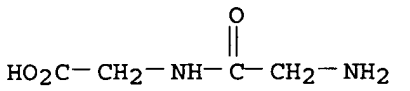
L30 ANSWER 15 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:71845 HCAPLUS
DOCUMENT NUMBER: 136:139825
TITLE: Modulated release therapeutic aerosols
INVENTOR(S): Adjei, Akwete L.; Zhu, Yaping; Cutie, Anthony J.
PATENT ASSIGNEE(S): Aeropharm Technology Incorporated, USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002005785	A1	20020124	WO 2001-US41129	20010625
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:
US 2000-219054P P 20000718
US 2000-702319 A 20001031

AB A modulated release aerosol formulation is disclosed. The formulation comprises a biodegradable ABA block copolymer having a selected medicament associated therewith, and a fluid carrier for carrying and delivering the construct. Matrixes in poly(lactic-co-glycolic acid) include ethanol, bovine insulin, purified water, and tetrafluoroethane.
IT **556-50-3**, Glycylglycine **9061-61-4**, **Ngf**
11096-26-7, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulated release therapeutic aerosols)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 9061-61-4 HCAPLUS
CN Nerve growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 16 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:816504 HCAPLUS
DOCUMENT NUMBER: 135:362576
TITLE: A pharmaceutical aerosol formulation containing rosiglitazone and amino acids
INVENTOR(S): Cutie, Anthony J.; Adjei, Akwete L.; Sexton, Frederick A.
PATENT ASSIGNEE(S): Aeropharm Technology, Inc., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

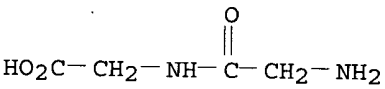
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001082980	A1	20011108	WO 2001-US37		20010102
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
US 6468507	B1	20021022	US 2000-702213		20001031
CA 2407337	AA	20011108	CA 2001-2407337		20010102
EP 1305053	A1	20030502	EP 2001-901650		20010102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2003535825	T2	20031202	JP 2001-579853		20010102
PRIORITY APPLN. INFO.:			US 2000-201564P	P	20000501
			US 2000-702213	A	20001031
			WO 2001-US37	W	20010102

AB A pharmaceutical aerosol formulation comprises (a) rosiglitazone maleate; (b) a fluid carrier, and a stabilizer selected from an amino acid, a

derivative or a mixture of the foregoing. The formulation further contains a second drug selected from e.g., insulin or its analogs, **interleukin**, **interferon**, heparin, hormone, chloropropamide, ribavirin.

IT **556-50-3**, Glycylglycine **11096-26-7**, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical aerosol formulation containing rosiglitazone and amino acids)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 17 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:816405 HCAPLUS
DOCUMENT NUMBER: 135:348928
TITLE: Pharmaceutical aerosol formulations containing pioglitazone
INVENTOR(S): Cutie, Anthony J.; Adjei, Akwete L.; Sexton, Frederik A.
PATENT ASSIGNEE(S): Aeropharm Technology, Inc., USA
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

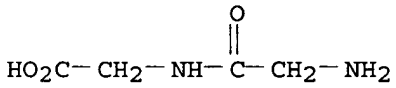
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001082873	A2	20011108	WO 2001-US34	20010102
WO 2001082873	A3	20020221		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6610272	B1	20030826	US 2000-718039	20001120
CA 2407129	AA	20011108	CA 2001-2407129	20010102
AU 2001026234	A5	20011112	AU 2001-26234	20010102
EP 1307243	A2	20030507	EP 2001-900816	20010102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

JP 2003531842	T2	20031028	JP 2001-579749		20010102
PRIORITY APPLN. INFO.:			US 2000-201232P	P	20000501
			US 2000-718039	A	20001120
			WO 2001-US34	W	20010102

AB A pharmaceutical formulation comprises pioglitazone or a derivative, a fluid carrier for containing the drug,. The formulation addnl. comprises a fluid carrier and a stabilizer which is selected from an amino acid. The pioglitazone is combined with a second drug selected from, e.g., insulin or its analogs, an amylin, an immunomodulating protein, an **interleukin**.

IT **556-50-3D**, Glycylglycine, esters or salts **11096-26-7**, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical aerosol formulations containing pioglitazone)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L30 ANSWER 18 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:816400 HCAPLUS
DOCUMENT NUMBER: 135:348926
TITLE: A pharmaceutical aerosol formulation comprising troglitazone and stabilizer
INVENTOR(S): Cutie, Anthony J.; Adjei, Akwete L.
PATENT ASSIGNEE(S): Aeropharm Technology, Inc., USA
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001082868	A2	20011108	WO 2001-US14043	20010501
WO 2001082868	A3	20020411		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6464959	B1	20021015	US 2000-702779	20001031
AU 2001059318	A5	20011112	AU 2001-59318	20010501

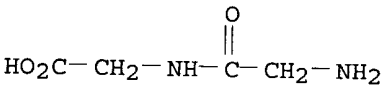
PRIORITY APPLN. INFO.:	US 2000-201248P	P	20000501
	US 2000-702779	A	20001031

WO 2001-US14043 W 20010501

AB A medicament formulation is disclosed comprising troglitazone or a derivative Addnl. the formulation comprises a fluid carrier and a stabilizer, which is selected from an amino acid. The troglitazone s combined with a second drug selected from, e.g., insulin or its analogs, an amylin, an immunomodulating protein, an **interleukin**.

IT **556-50-3D**, Glycylglycine, esters or salts **11096-26-7**, **Erythropoietin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical aerosol formulation comprising troglitazone and stabilizer)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L30 ANSWER 19 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:712188 HCAPLUS
DOCUMENT NUMBER: 136:4425
TITLE: The ubiquitin-like protein FAT10 forms covalent conjugates and induces apoptosis
AUTHOR(S): Raasi, Shahri; Schmidtke, Gunter; Groettrup, Marcus
CORPORATE SOURCE: Research Department, Cantonal Hospital St. Gallen, St. Gallen, CH-9007, Switz.
SOURCE: Journal of Biological Chemistry (2001), 276(38), 35334-35343
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

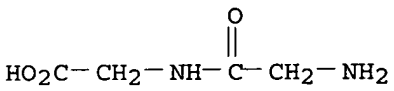
AB FAT10 is a ubiquitin-like protein that is encoded in the major histocompatibility complex class I locus and is synergistically inducible with **interferon**-γ and **tumor necrosis** factor α. The mol. consists of two ubiquitin-like domains in tandem arrangement and bears a conserved diglycine motif at its carboxyl terminus commonly used in ubiquitin-like proteins for isopeptide linkage to conjugated proteins. We investigated the function of FAT10 by expressing murine FAT10 in a hemagglutinin-tagged wild type form as well as a diglycine-deficient mutant form in mouse fibroblasts in a tetracycline-repressible manner. FAT10 expression did not affect major histocompatibility complex class I cell surface expression or antigen presentation. However, we found that wild type but not mutant FAT10 caused apoptosis within 24 h of induction in a caspase-dependent manner as indicated by annexin V cell surface staining and DNA fragmentation. Wild type FAT10, but not its diglycine mutant, was covalently conjugated to thus far unidentified proteins, indicating that specific FAT10 activating and conjugating enzymes must be operative in unstimulated fibroblasts. Because FAT10 expression causes apoptosis and is inducible with **tumor necrosis** factor α, it may be functionally

involved in the programmed cell death mediated by this cytokine.

IT **556-50-3**, Diglycine
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)
(ubiquitin-like protein FAT10 forms covalent conjugates and induces apoptosis compared to mutant)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 20 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:617872 HCAPLUS

DOCUMENT NUMBER: 135:185485

TITLE: Medicinal aerosol formulation containing a peptide or protein

INVENTOR(S): Adjei, Akwete L.; Zhu, Yaping; Sun, John Z.; Stefanos, Simon

PATENT ASSIGNEE(S): Aeropharm Technology, Inc., USA

SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

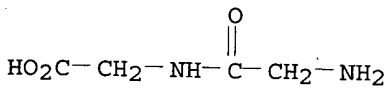
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001060420	A1	20010823	WO 2001-US117		20010102
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
US 6585957	B1	20030701	US 2000-702195		20001030
CA 2396796	AA	20010823	CA 2001-2396796		20010102
EP 1292283	A1	20030319	EP 2001-901681		20010102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2003524646	T2	20030819	JP 2001-559515		20010102
PRIORITY APPLN. INFO.:			US 2000-177937P	P	20000125
			US 2000-702195	A	20001030
			WO 2001-US117	W	20010102

AB A medicinal formulation comprises: a therapeutic amount of a protein or peptide medicament, a fluid for containing said medicament having a mol. size ranging from 1 K Dalton to about 150 K Daltons, a fluid carrier for containing the medicament, and a stabilizer selected from an amino acid, a derivative thereof or a mixture of the foregoing.

IT **556-50-3**, Glycylglycine **11096-26-7**,

Erythropoietin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicinal aerosol formulation containing a peptide or protein)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 21 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:193979 HCAPLUS
DOCUMENT NUMBER: 130:227745
TITLE: High and low load formulations of **IGF**-I in multivesicular liposomes
INVENTOR(S): Shirley, Bret A.; Hora, Maninder; Ye, Qiang; Katre, Nandini; Asherman, John
PATENT ASSIGNEE(S): Depotech Corporation, USA; Chiron Corporation
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9912522	A1	19990318	WO 1998-US18738	19980908
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6306432	B1	20011023	US 1997-925531	19970908
AU 9893100	A1	19990329	AU 1998-93100	19980908
EP 1021167	A1	20000726	EP 1998-945974	19980908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001515852	T2	20010925	JP 2000-510421	19980908

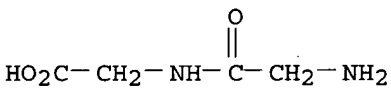
PRIORITY APPLN. INFO.:
US 1997-925531 A1 19970908
WO 1998-US18738 W 19980908

AB Disclosed are multivesicular liposomes (MVLs) containing **IGF**-I with substantially full bioavailability, wherein the loading of the **IGF**-I into the liposomes is modulated by adjusting the osmolarity of the aqueous component into which the agents are dissolved prior to encapsulation. In the making of MVLs, the process involves dissolving the **IGF**-I, an osmolarity excipient, and a pH modifying agent sufficient to solubilize

the **IGF**-I in a first aqueous component used during manufacture of the MVLs. To increase the loading of the **IGF**-I, the osmolarity of the aqueous component used during manufacture of the MVLs is reduced, whereas the osmolarity of the aqueous component is increased to obtain the low load formulations. The rate of release of the active agent into the surrounding environment in which the liposomes are introduced can be simultaneously controlled by incorporating into the lipid component used in the formulation at least one long chain amphipathic lipid. Use of the long chain amphipathic lipid in the lipid component is particularly helpful in controlling the release rate from high drug load formulations. A water-in-oil preparation was prepared by mixing a lipid component comprising 1,2-dioleoyl-sn-glycero-3-phosphocholine 13.20, cholesterol 19.88, 1,2-dipalmitoyl-sn-glycero-3-phosphocholine 2.79, and triolein 2.44 mM in chloroform with an aqueous component comprising IFG-I 20 mg/mL, sucrose 5.0%, and HCl 100 mM. The drug loading of the final liposome suspension was 37.7%.

IT **556-50-3**, Glycylglycine **67763-96-6**, **IGF**-I
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high and low load formulations of **IGF**-I in multivesicular liposomes)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



RN 67763-96-6 HCAPLUS
CN Insulin-like growth factor I (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 22 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:42589 HCAPLUS
DOCUMENT NUMBER: 130:90516
TITLE: Use of bromelain in the manufacture of a medicament for enhancement of intestinal permeability
INVENTOR(S): Mynott, Tracey Lehanne; Fasano, Alessio
PATENT ASSIGNEE(S): Cortecs Limited, UK; The University of Maryland at Baltimore
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9900141	A1	19990107	WO 1998-GB1895	19980626

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,

UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9882254	A1	19990119	AU 1998-82254	19980626
EP 994720	A1	20000426	EP 1998-932308	19980626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002511867	T2	20020416	JP 1999-505390	19980626
PRIORITY APPLN. INFO.:			GB 1997-13667 A	19970627
			WO 1998-GB1895 W	19980626

AB Bromelain (I) is capable of enhancing the permeability of the intestine and therefore is able to increase the absorption of proteins such as insulin and other macromol. biol. active agents. Rabbits' intestinal epithelium treatment with 15 mg/mL I increased intestinal permeability in a dose-dependent manner, which was reversed when I was removed. I did not have an adverse effect on nutrient influx suggesting that the use of this substance was safe.

IT **9061-61-4**, Nerve **growth factor**
61912-98-9, Insulin like **growth factor**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of bromelain in manufacture of medicament for enhancement of intestinal permeability)

RN 9061-61-4 HCAPLUS
CN Nerve growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

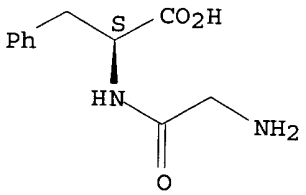
RN 61912-98-9 HCAPLUS
CN Insulin-like growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **3321-03-7**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(use of bromelain in manufacture of medicament for enhancement of intestinal permeability)

RN 3321-03-7 HCAPLUS
CN L-Phenylalanine, glycyl- (9CI) (CA INDEX NAME)

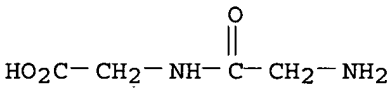
Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 23 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:678650 HCAPLUS
DOCUMENT NUMBER: 126:8243
TITLE: Synthesis and properties of 2-carboxyalkyl-1,2-benzisoselenazol-3(2H)-ones and related organoselenium

compounds as nitric oxide synthase inhibitors and cytokine inducers
AUTHOR(S): Mlochowski, Jacek; Gryglewski, Ryszard J.; Inglot, Anna D.; Jakubowsky, Andrzej; Juchniewics, Leszek; Kloc, Krystian
CORPORATE SOURCE: Inst. Org. Chem., Biochem. Biotechnol., Technical Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Liebigs Annalen (1996), (11), 1751-1755
CODEN: LANAEM; ISSN: 0947-3440
PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A convenient synthesis of a series of N-carboxyalkyl-1,2-benzisoselenazol-3(2H)-ones and their esters from 2-ClOCC6H4SeCl is reported. In a similar way other 2-substituted 1,2-benzisoselenazol-3(2H)-ones were synthesized. The related bis[2-(carbamoyl)phenyl] diselenides were obtained by reductive conversion of 1,2-benzisoselenazol-3(2H)-ones or directly by the reaction of [2-ClOCC6H4Se]2 with compds. having a primary amino group. Some of the prepared compds. are modest cytokine (**TNF**, IFN) inducers in human peripheral blood leukocyte cultures and block the constitutive endothelial nitric oxide synthase (ce NOS).
IT **556-50-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carboxyalkyl)benzisoselenazolones and related selenium compds. as nitric oxide synthase inhibitors and cytokine inducers)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 24 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:517737 HCAPLUS
DOCUMENT NUMBER: 121:117737
TITLE: Peptide compositions for use in pharmaceutical, cosmetic, and biotechnological applications
INVENTOR(S): Quelle, Gerhard
PATENT ASSIGNEE(S): Germany
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4244415	A1	19940630	DE 1992-4244415	19921229
PRIORITY APPLN. INFO.:			DE 1992-4244415	19921229

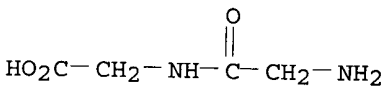
AB Peptides and peptide-amino acid mixts. obtained by partial hydrolysis of collagen, gelatin, elastin, keratin, or connective tissue, or synthetic mixts. with similar compns., are useful (a) in biotechnol. as additives to serum-free or serum-depleted cell culture nutrient media, (b) in medicine as wound healing promoters, immunostimulants, and stimulants of **erythropoietin** formation, and (c) in cosmetics as skin

conditioners, anti-aging factors, and radical scavengers. The peptides contain the sequences Gly-His-Lys and/or Gly-Asp-Ser, and may be complexed with trace metals. The compns. may also contain carbohydrates, lipids, phospholipids, glycolipids, nucleic acids, enzymes, cytokines, etc. to enhance the activity of the peptides, as well as extraneous peptides to diminish adsorption of the active peptides on glass or plastic surfaces. Thus, 1 kg denatured collagen was hydrolyzed with 1N HCl at 100° for 3 h, neutralized, desalted, and diluted to 20 L. This hydrolyzate caused a 60% stimulation of metabolism by rat liver mitochondria. The hydrolyzate was stabilized with a mixture of Na ascorbate 1.0, mannitol 20.0, glycerol 50.0, Na lactate 20.0, soybean peptides 1.0, Me hydroxybenzoate Na salt 1.0,and phenonip 2.0 g/L.

IT **556-50-3**, Gly-Gly
RL: BIOL (Biological study)
(metabolism stimulation by peptide containing, biotechnol. and cosmetic and pharmaceutical applications in relation to)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 25 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:109744 HCAPLUS
DOCUMENT NUMBER: 118:109744
TITLE: Pharmaceutical formulations of osteogenic proteins
INVENTOR(S): Ron, Eyal; Turek, Thomas J.; Isaacs, Benjamin S.; Patel, Himakshi; Kenley, Richard A.
PATENT ASSIGNEE(S): Genetics Institute, Inc., USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9300050	A2	19930107	WO 1992-US5309	19920622
WO 9300050	A3	19930819		
W: AU, BR, CA, FI, JP, KR, NO, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9222542	A1	19930125	AU 1992-22542	19920622
AU 663328	B2	19951005		
EP 591392	A1	19940413	EP 1992-914339	19920622
EP 591392	B1	19960911		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
AT 142460	E	19960915	AT 1992-914339	19920622
ES 2094359	T3	19970116	ES 1992-914339	19920622
JP 3351525	B2	20021125	JP 1993-501625	19920622
US 5597897	A	19970128	US 1993-81378	19930629
NO 9304573	A	19931213	NO 1993-4573	19931213
NO 307402	B1	20000403		
FI 109274	B1	20020628	FI 1993-5732	19931220
PRIORITY APPLN. INFO.:			US 1991-718721 A	19910621

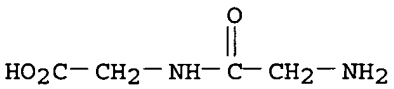
WO 1992-US5309 A 19920622

AB Pharmaceutical formulations designed to sequester osteogenic proteins in situ for a time sufficient to allow the protein to induce cartilage and/or bone formation comprises an admixt. of an osteogenic protein, a matrix selected form the group consisting of poly(lactic acid), poly(glycolic acid), and lactic acid-glycolic acid copolymer, and an osteogenic protein-sequestering alkyl cellulose. The formulations provide malleable implants and can be used for repairing bone defects.

IT **556-50-3**
RL: BIOL (Biological study)
(implants containing osteogenic proteins and polyester matrix and)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 26 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:102257 HCAPLUS

DOCUMENT NUMBER: 116:102257

TITLE: Tris-maleimido compounds as intermediates in trifunctional antibody synthesis

INVENTOR(S): Ahlem, Clarence N.; Huang, Ann E.; Anderson, Leslie D.

PATENT ASSIGNEE(S): Hybritech, Inc., USA

SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 446071	A2	19910911	EP 1991-301962	19910308
EP 446071	A3	19920513		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5091542	A	19920225	US 1990-491386	19900309
AU 9172724	A1	19910912	AU 1991-72724	19910307
AU 638313	B2	19930624		
CA 2037811	AA	19910910	CA 1991-2037811	19910308
NO 9100922	A	19910910	NO 1991-922	19910308
NO 176438	B	19941227		
NO 176438	C	19950405		
ZA 9101740	A	19921125	ZA 1991-1740	19910308
JP 06228091	A2	19940816	JP 1991-68824	19910308
US 5262524	A	19931116	US 1991-793051	19911115

PRIORITY APPLN. INFO.: US 1990-491386 A 19900309

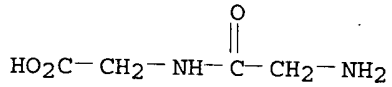
OTHER SOURCE(S): MARPAT 116:102257

AB Tris-maleimido compds. are prepared and used as trivalent coupling agents for covalently linking antibody Fab'-like fragments. Tris[2-N-(maleoylglycyl)aminoethyl]amine (TMG) was used to prepare a trivalent antibody-like compound xCEM-TMG-xCHA-TMG-xCEM (xCEM = Fab of mouse/human chimeric antibody to carcinoembryonic antigen; xCHA = Fab of mouse/human chimeric antibody to In-EDTA chelate complex). To prepare TMG, maleimide was reacted with Me chloroformate, the product was reacted with glycine,

the resultant maleoylglycine was treated with N-hydroxysuccinimide and dicyclohexylcarbodiimide, and the product was reacted with tris(2-aminoethyl)amine.

IT **556-50-3**, Glycylglycine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methoxycarbonylmaleimide)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 27 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:91386 HCAPLUS
DOCUMENT NUMBER: 116:91386
TITLE: Stabilized formulations containing fibroblast **growth factor**
INVENTOR(S): Foster, Linda C.; Thompson, Stewart A.; Tarnowski, S. Joseph
PATENT ASSIGNEE(S): California Biotechnology, Inc., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

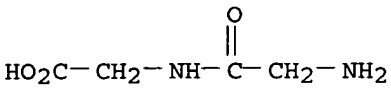
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9115509	A1	19911017	WO 1991-US2184	19910328
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5217954	A	19930608	US 1990-504340	19900404
CA 2079780	AA	19911005	CA 1991-2079780	19910328
CA 2079780	C	20020212		
AU 9176925	A1	19911030	AU 1991-76925	19910328
EP 527781	A1	19930224	EP 1991-907960	19910328
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05506225	T2	19930916	JP 1991-507851	19910328
JP 3389249	B2	20030324		

PRIORITY APPLN. INFO.: US 1990-504340 A 19900404
WO 1991-US2184 A 19910328

AB A pharmaceutical formulation of stabilized basic fibroblast **growth factor** (bFGF) which is less susceptible to oxidation or metal-induced aggregation comprises a chelating agent. A half life of bFGF in the presence of 1 mM EDTA at 25° was 103 days, vs. 4 days for the control in acetate buffer with no EDTA.

IT **556-50-3**, Glycylglycine
RL: BIOL (Biological study)
(fibroblast **growth factor** formulations containing, as stabilizer)

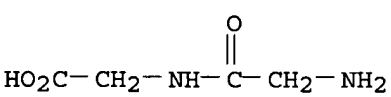
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 28 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:175189 HCAPLUS
DOCUMENT NUMBER: 112:175189
TITLE: A general method for highly selective crosslinking of unprotected polypeptides via pH-controlled modification of N-terminal α-amino groups
AUTHOR(S): Wetzel, Ronald; Halualani, Roger; Stults, John T.; Quan, Clifford
CORPORATE SOURCE: Dep. Protein Chem., Genentech, Inc., San Francisco, CA, 94080, USA
SOURCE: Bioconjugate Chemistry (1990), 1(2), 114-22
CODEN: BCCHES; ISSN: 1043-1802
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method is described for the highly selective modification of the α-NH2 groups at the N-termini of unprotected peptides to form stable, modified peptide intermediates that can be covalently coupled to other mols. or to a solid support. Acylation with iodoacetic anhydride at pH 6.0 occurs with 90-98% selectivity for the α-NH2 group, depending on the N-terminal residue (as shown with a series of model hexapeptides containing a competing lysine residue). Although cysteine residues must be protected (reversibly or irreversibly) before the anhydride reaction, there are no detectable side reactions of the α-NH2 moiety (of the reagent or of modified peptide) with the side chains of histidine, methionine, or lysine. The reaction works well in denaturants so that inhibitory effects of noncovalent structure can be minimized. In a 2nd step, the iodoacetyl-peptide can be reacted with a thiol group on a protein, on a solid chromatog. matrix, on a spectroscopic probe, etc. This is illustrated by reaction of a series of Nα-iodoacetyl-peptides with murine **interferon**-γ, which contains a C-terminal cysteine residue. The iodoacetic anhydride scheme is superior in selectivity for α-NH2 groups to conventional chemical approaches to crosslinking and the reaction is suited for modifying peptide fragments, as pure species or as mixts., derived from proteolytic or chemical fragmentation of proteins. Peptides synthesized biosynthetically, e.g., via recombinant DNA techniques, can be crosslinked in this way. It may be possible to crosslink small amts. of proteinaceous biol. factors and, thus, develop affinity matrixes or make antibodies before the polypeptide of interest has been fully purified or structurally characterized.

IT **556-50-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with iminothiolane, selectivity in)
RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



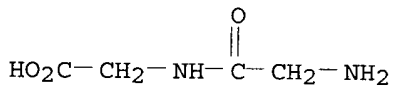
L30 ANSWER 29 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:418415 HCAPLUS
DOCUMENT NUMBER: 99:18415
TITLE: Condensation-polymerization and **morphogenesis** in aqueous medium as a model for chemical evolution
AUTHOR(S): Egami, Fujio
CORPORATE SOURCE: Mitsubishi-Kasei Inst. Life Sci., Machida, 194, Japan
SOURCE: Struct., Dyn., Interact. Evol. Biol. Macromol., Proc. Colloq. (1983), Meeting Date 1982, 371-82. Editor(s): Helene, Claude. Reidel: Dordrecht, Neth. CODEN: 49UMAF
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Formaldehyde and hydroxylamine incubated at 105° under an anoxygenic atmospheric produced a series of amino acids over a period of several days. The formation of glycylglycine followed that of glycine and attained a maximum value after 25 days, and finally disappeared after .apprx.100 days. Condensation-polymerization and **morphogenesis** in aqueous medium, especially the formation of protocell-like structures (including marigranules), as a model for chemical evolution is reviewed and discussed.

IT **556-50-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from formaldehyde and hydroxylamine, as prebiotic evolution model)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 30 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1982:595014 HCAPLUS
DOCUMENT NUMBER: 97:195014
TITLE: A highly specific aminotripeptidase of rat brain cytosol. Substrate specificity and effects of inhibitors
AUTHOR(S): Sachs, Len; Marks, Neville
CORPORATE SOURCE: Cent. Neurochem., Rockland Res. Inst., Ward's Island, NY, 10035, USA
SOURCE: Biochimica et Biophysica Acta (1982), 706(2), 229-38 CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English

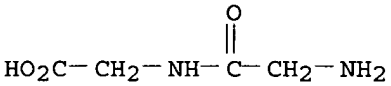
AB An aminopeptidase preferentially hydrolyzing Leu-Gly-Gly or Ala-Gly-Gly was purified from rat brain cytosol and its substrate specificity and the effects of inhibitors investigated. The enzyme was devoid of di- and oligopeptidase contamination. Biol. active tripeptides such as Met-Leu-Tyr (chemotactic factor), Gly-His-Lys (liver **growth factor**), and Thr-Val-Leu (central nervous system tripeptide) were hydrolyzed at rates 0.05-0.15-fold that of Leu-Gly-Gly. Melanostatin (Pro-Leu-GlyNH2) was not a substrate. Substrates bearing N-terminal charged groups, substrates with proline in positions 2 or 3, those with a D-amino acid in positions 1 or 2, or with a C-terminal CONH2 were poorly hydrolyzed or did not act as substrates, thus providing information on subsites involved in enzyme catalysis. The enzyme was inhibited

competitively by bestatin (Ki = 10-7M) and Captopril (2.5 + 10-7M). Inhibition occurred with low concns. of Zn2+ or p-chloromercuribenzoate, and, at higher concentration, with L-1-tosyl-phenylalanylchloromethyl ketone and
p-chloromercuriphenylsulfonate. Inhibition was observed for the chemotactic factor (I50 = 13 μM) and for the central nervous system tripeptide (195 μM). The enhanced action of Captopril was attributed to the presence of SH and Me groups, as inhibition was shared by di- and tripeptides with proline in positions 2 and 3. The specificity pattern of the brain enzyme was different from that reported for kidney and intestine.

IT **556-50-3**
RL: BIOL (Biological study)
(aminotripeptidase of brain cytosol inhibition by)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 31 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

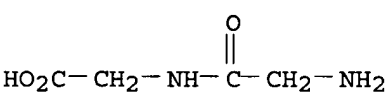
ACCESSION NUMBER: 1982:453657 HCAPLUS
DOCUMENT NUMBER: 97:53657
TITLE: Buffer electrofocusing of **interleukin** I
AUTHOR(S): Prestidge, R. L.; Koopman, W. J.; Bennett, J. C.; Hearn, M. T. W.
CORPORATE SOURCE: Dep. Med., Univ. Alabama, Birmingham, AL, 35294, USA
SOURCE: Bioscience Reports (1982), 2(4), 241-6
CODEN: BRPTDT; ISSN: 0144-8463
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Buffer isoelec. focusing (IEF), with a mixture of low-mol.-weight buffer compds. to establish a stable linear pH gradient covering the range 3.5-6.0 on granulated gel media, was used for the purification of **interleukin** I (ILI), prepared by lipopolysaccharide stimulation of P388D1 cells attached to microcarrier beads. IEF was done on Sephadex G 75 gel beds according to the methods of B. J. Radola (1973) and R. L. Prestidge and M. T. W. Hearn (1979) for 18 h at 8 W. The pH gradient was linear, and there was 1 peak of ILI activity which covered a number of fractions, due to the presence of a protein contaminant which can be removed by subsequent purification The recovery of ILI was good (60-120%). The method obviates the problem of removal of ampholytes after IEF.

IT **556-50-3**
RL: BIOL (Biological study)
(buffer system containing, for isoelec. focusing of **interleukin**)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)

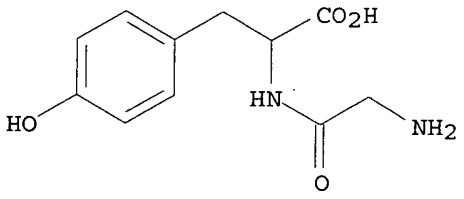


L30 ANSWER 32 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1953:6779 HCAPLUS
DOCUMENT NUMBER: 47:6779
ORIGINAL REFERENCE NO.: 47:1236f-h
TITLE: Peptides and bacterial growth. III. Utilization of tyrosine and tyrosine peptides by Streptococcus faecalis
AUTHOR(S): Kihara, Hayato; Klatt, Oleta A.; Snell, Esmond E.
CORPORATE SOURCE: Univ. of Wisconsin, Madison
SOURCE: Journal of Biological Chemistry (1952), 197, 801-7
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Leucyltyrosine and glycyltyrosine surpass tyrosine in growth-promoting activity for S. faecalis in media high in vitamin B6, but are equal to or slightly less active than tyrosine in promoting growth in media free of vitamin B6. The result is due to the production of tyrosine decarboxylase by S. faecalis. Free tyrosine but not peptidebound tyrosine is destroyed by this enzyme. Tyrosine decarboxylase is nonfunctional when vitamin B6 is absent. Under these conditions free tyrosine is not destroyed and serves as well as or better than tyrosine peptides as a source of tyrosine. Peptides of tyrosine were hydrolyzed by resting cells of S. faecalis. Leucyltyrogine was hydrolyzed more rapidly than glycyltyrosine and was more active in promoting growth. The failure of the tyrosine produced by hydrolysis to undergo decarboxylation by growing cells is ascribed to its continual production at a low concentration, and the higher affinity of protein-synthesizing enzymes than of tyrosine decarboxylase for tyrosine.

IT **23514-44-5**, Tyrosine, N-glycyl-
(as **growth factor** for Streptococcus faecalis)
RN 23514-44-5 HCAPLUS
CN Tyrosine, N-glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 33 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1952:57670 HCAPLUS
DOCUMENT NUMBER: 46:57670
ORIGINAL REFERENCE NO.: 46:9664c-e
TITLE: Effect of glycine peptides on the growth of Leuconostoc mesenteroides
AUTHOR(S): Nurmikko, Veikko; Virtanen, Artturi I.
CORPORATE SOURCE: Biochem. Inst., Helsinki
SOURCE: Acta Chemica Scandinavica (1951), 5, 97-101
CODEN: ACHSE7; ISSN: 0904-213X
DOCUMENT TYPE: Journal
LANGUAGE: English

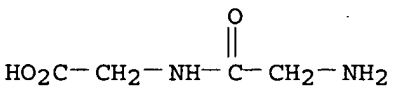
AB The activity of glycine and glycine peptides such as DL-alanylglycine, glycyl-L-leucine, DL-leucylglycine and glycylglycine on the growth of Leuconostoc mesenteroides P-60 was about the same. However the activity of glycyl-DL-phenylalanine Me ester, glycylglycine Et ester, triglycine Et

ester and pentaglycine Et ester was only about one third that of free equimolar glycine. Glycyl-L-tyrosine Me ester, was more active than glycine. Benzoylglycine was active while benzoylglycylglycine was inactive.

IT **556-50-3**, Glycine, N-glycyl-
(as **growth factor** for Leuconostoc mesenteroides)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



L30 ANSWER 34 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1952:49002 HCAPLUS

DOCUMENT NUMBER: 46:49002

ORIGINAL REFERENCE NO.: 46:8188h-i,8189a

TITLE: The effect of amino acids and related compounds upon the growth, virulence, and enzyme activity of crown-gall bacteria

AUTHOR(S): Van Lanen, J. M.; Riker, A. J.; Baldwin, I. L.

CORPORATE SOURCE: Univ. of Wisconsin, Madison

SOURCE: Journal of Bacteriology (1952), 63, 723-34
CODEN: JOBAAY; ISSN: 0021-9193

DOCUMENT TYPE: Journal

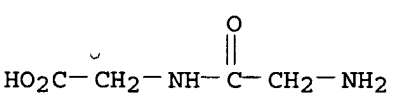
LANGUAGE: Unavailable

AB The influence of amino acids and related compds. upon the growth and virulence of Agrobacterium tumefaciens was studied. Compds. which inhibited growth and caused complete attenuation are listed as follows in order of decreasing activity: α-aminobutyric acid, threonine, norvaline, valine, norleucine, isoleucine, glycine, serine, alanine, leucine, lysine, and diglycine. With leucine isomers, the unnatural isomer, D(+)-leucine, was more inhibitory than the L(-)-leucine. Dicarboxylic amino acids stimulated growth and had no effect on virulence even when higher concns. were employed. After 17 transfers in glycine media, 70% of the cultures on stock media regained virulence. But after 25 transfers, only 2% regained virulence. Inhibition of growth by amino acids was not reversed by other amino acids, vitamins, or **growth factors**. Liver extract induced slight reversal. Virulent and attenuated cultures were not differentiated by cultivation in various media, serological reactions, or enzyme activities. However, glycine-attenuated strains not only grew better but were enzymically more active than were unacclimatized strains.

IT **556-50-3**, Glycine, N-glycyl-
(effect on crown-gall bacteria)

RN 556-50-3 HCAPLUS

CN Glycine, glycyl- (9CI) (CA INDEX NAME)



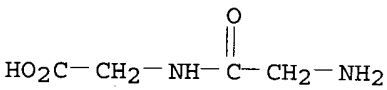
L30 ANSWER 35 OF 35 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1952:17914 HCAPLUS
DOCUMENT NUMBER: 46:17914
ORIGINAL REFERENCE NO.: 46:3113f-h
TITLE: The mode of action of peptides as **growth factors** for Leuconostoc mesenteroides
AUTHOR(S): Virtanen, Artturi I.; Nurmikko, Veikko
CORPORATE SOURCE: Biochem. Inst., Helsinki, Finland
SOURCE: Acta. Chem. Scand. (1951), 5, 681-9
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Leucylglycine, alanylglycine, and glycylglycine are hydrolyzed by L. mesenteroides P60 and utilized for growth. Hydrolysis and growth has been demonstrated with glycyl-L-tryosine methyl ester and glycyl-DL-phenylalanine methyl ester with this organism. Analyses were carried out by means of one-dimensional paper chromatography (cf. C.A. 43, 8298i). Glycine peptide activity was dependent on the hydrolysis of the peptide to the free amino acid. DL-Leucylglycine replaced both leucine and glycine in growth expts. with this organism. The mode of action of glycine peptides based on the rate of hydrolysis of the peptides has not yet been established. Benzoylglycine is active in growth expts. but hydrolysis was not noted with this organism.

IT **556-50-3**, Glycine, N-glycyl-
(as **growth factor** for Leuconostoc mesenteroides)

RN 556-50-3 HCAPLUS
CN Glycine, glycyl- (9CI) (CA INDEX NAME)



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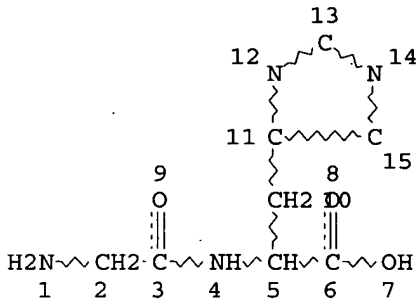


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L44            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L43 AND L27
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Gly-His

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L44  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         1962:438419  HCAPLUS
DOCUMENT NUMBER:          57:38419
ORIGINAL REFERENCE NO.:   57:7719a-b
TITLE:                    The isolation, identification, and synthesis of a
                          peptide growth factor for
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Pediococcus cerevisiae
AUTHOR(S): Florsheim, H.A.; Makineni, S.; Shankman, S.
CORPORATE SOURCE: Shankman Labs., Los Angeles, CA
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AB A strongly stimulatory **growth factor** for P. cerevisiae was isolated from a complete casein hydrolyzate and was shown to be acid-stable isoleucylhistidine. These other peptides of histidine with α-amino acids had growth-promoting activity: L-val-L-his; L-leu-L-his; gly-L-his; D-ala-L-his; a-aminobutyryl-L-his; L-tyr-L-his; DL-his-DL-his; L-his-L-val; L-his-L-leu; L-his-1-aminocyclopen tanecarboxylic acid; L-his-L-ala; ser-his-leu-val-glu; pro-phe-his-leu.

CC 66 (Microbial Chemistry)

IT Peptides
(as **growth factor** for Pediococcus cerevisiae, isolation, identification and synthesis of)

IT Pediococcus cerevisiae
(peptide **growth factors** for, isolation, identification and synthesis of)

IT Glutamic acid, N-[N-(N-serylhistidyl)leucyl]valyl]-
Histidine, N-(2-aminobutyryl)-, L-
Histidine, N-isoleucyl-, acetate
Histidine, N-isoleucyl-, acetate
Histidine, N-D-alanyl-, L-
Histidine, N-DL-histidyl-
(as **growth factor** for Pediococcus cerevisiae)

IT 3788-44-1, Histidine, N-L-tyrosyl-, L-
(as **growth factor** for Pediococcus cerevisiae)

IT **2489-13-6**, Histidine, N-glycyl-, L- 7763-65-7, Leucine, N-L-histidyl-, L- 13589-07-6, Histidine, N-L-valyl-, L- 16874-75-2, Alanine, N-L-histidyl-, L- 16967-15-0, Histidine, N-(N-carboxy-L-valyl)-, N-benzyl ester 38062-72-5, Histidine, N-L-leucyl-, L- 42014-21-1, Leucine, N-[N-(3-phenyl-N-prolylalanyl)histidyl]- 53935-11-8, Histidine, N-(N-carboxy-L-isoleucyl)-, N-benzyl ester 76019-15-3, Valine, N-L-histidyl-, L- 79778-48-6, Histidine, N-(N-carboxy-L-leucyl)-, N-benzyl ester, L- 89620-35-9, Cyclopentanecarboxylic acid, 1-[2-amino-3-imidazol-4(or 5)-ylpropionamido]- 95485-24-8, Valine, N-(N,1-dicarboxy-L-histidyl)-, dibenzyl Me ester, L- 103104-02-5, Histidine, 1-carboxy-N-(N-carboxy-L-leucyl)-, N,1-dibenzyl ester
(as **growth factor** for Pediococcus cerevisiae)

IT **2489-13-6**, Histidine, N-glycyl-, L-
(as **growth factor** for Pediococcus cerevisiae)

RN 2489-13-6 HCAPLUS
CN L-Histidine, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.